United States. Patent Office.

Frank L. Capps)
) Interference
versus) No. 20769
) Subject: Sound Records
Ademor N. Petit) of celluloid and method
of making the same

RECORD (INCOMPLETE)

Raymond R. Wile
1976

U. S. Patent Office.

Frank L. Capps)) Interference No. 20769
)
versus) Subject: Sound Records
) of celluloid and method
Ademor N. Petit)) of making the same

Electrostatic copies of originals
located in the Archives Section
-- FRC -- Suitland, Md. (RG 241)

INDEX.

Pages
Issues.. 1
Capps' Preliminary Statement.......................... 2–3
Capps' Amended Preliminary Statement.................. 3–4

Testimony in Chief on Behalf of Capps.

Deposition of Frank L. Capps :
  Direct Examination.......................... 7–11
  Cross-Examination.......................... 11–17
Deposition of Victor H. Emerson :
  Direct Examination.......................... 18–28
  Cross-Examination.......................... 28–36

Proofs in Reply on Behalf of Capps.

Deposition of Charles B. Gregory :
  Direct Examination.......................... 39–41
  Cross-Examination.......................... 41–42
Deposition of James K. Reynard :
  Direct Examination.......................... 43–45
  Cross-Examination.......................... 45–47
Deposition of William Herbert Smith.................. 47–49
Deposition of Leonard G. Spencer :
  Direct Examination.......................... 49–51
  Cross-Examination.......................... 51–53
Deposition of Victor H. Emerson :
  Direct Examination.......................... 53–56
  Cross-Examination.......................... 56
Deposition of Frank L. Capps :
  Direct Examination.......................... 57–59, 67–68
  Cross-Examination.......................... 59–60, 68–69
Deposition of Frank W. Bird :
  Direct Examination.......................... 60–61
  Cross-Examination.......................... 61–64
Deposition of J. W. Housel, Jr. :
  Direct Examination.......................... 65
  Cross-Examination.......................... 67
Deposition of Edward D. Easton.......................... 70
Exhibits.. 73–77

IN THE

United States Patent Office.

FRANK L. CAPPS
vs.
ADEMOR N. PETIT.
} Interference No. 20,769.

SUBJECT-MATTER: CELLULOID SOUND-RECORDS.

ISSUES.

Count 1.

As a new article of manufacture, a celluloid tablet having engraved thereon a record of sound.

The method of producing sound records in celluloid, which consists in first softening the celluloid, then permitting it to stand until it assumes a crisp consistency, and while in that condition cutting or engraving therein a record of sound.

IN THE UNITED STATES PATENT OFFICE.

BEFORE THE EXAMINER OF INTERFERENCES.

Interference No. 20,769.

Preliminary Statement of Frank L. Capps.

STATE OF NEW YORK, } ss:
County of New York, }

Frank L. Capps, being first duly sworn, deposes and says that he is the Frank L. Capps named in and who executed the application for U. S. Letters-patent for Celluloid Sound-records and the Method of Producing the Same, filed April 3, 1900, Serial No. 11,358 which application is involved in this interference with two pending applications of Ademor N. Petit of Newark, New Jersey, under an interference declared Oct. 13, 1900.

Deponent further states that he conceived the invention disclosed by his said application (particularly set forth by claims 1 and 3 thereof) as early as the month of February, 1897.

That he disclosed the said invention to others shortly thereafter and earlier than February 18, 1897.

That he was engaged in reducing the said invention to practice and in experimenting to perfect the same and to obtain the best results therefrom, during the summer of 1897, and successfully reduced the said invention to practice by producing satisfactory sound-records (set forth in his said claim 3) by means of the process (set forth in said claim 1) of his said application, at least as early as the month of July, 1897; that, from the nature of his invention (the same being a *process* independent of any particular form of apparatus and also an article that could not be illustrated by a drawing), he made no sketches thereof; and that he made no model for a like reason.

That prior to the month of September, 1898, the said inventions had never been carried on in public and the records made in accordance therewith had never been used in public or been on sale or sold; but that since September, 1898, the process of said claim 1 has been carried on extensively and a number of records (set forth by said claim 3) made by such process in the city of Newark, and in the Record Department of the American Graphophone Co. (his assignee) at No. 1159 Broadway, in the city of New York, and elsewhere.

FRANK L. CAPPS.

Subscribed and sworn to before me this 1st day of November, 1900.

ELISHA K. CAMP,
[SEAL.] *Notary Public, New York County,*
New York.

IN THE UNITED STATES PATENT OFFICE.

BEFORE THE EXAMINER OF INTERFERENCES.

Interference No. 20,769.

Preliminary Statement of Frank L. Capps.

STATE OF NEW YORK, } ss:
County of New York, }

Frank L. Capps, being first duly sworn, deposes and says that he is the Frank L. Capps named in and who executed the application for U. S. Letters-patent for Celluloid Sound-records and the Method of Producing the Same, filed April 3, 1900, Serial No. 11,358, which application is involed in this interference with two pending applications of Ademor N. Petit of Newark, New Jersey, under an interference declared Oct. 13, 1900.

Deponent further states that he conceived the invention disclosed by his said application (particularly set forth by claims 1 and 3 thereof) on or about January 1, 1897.

That he disclosed the said invention to others on or about the same date.

That he was engaged in reducing the said invention to practice and in experimenting to perfect the same and to obtain the best results therefrom, during the summer of 1897, and successfully reduced the said invention to practice by producing satisfactory sound-records (set forth in his said claim 3) by means of the process (set forth in said claim 1) of his said application, on or about June 1, 1897; that from the nature of his invention (the same being a *process* independent of any particular form of apparatus and also an article that could not be illustrated by a drawing), he made no sketches thereof; and that he made no model for a like reason.

That prior to the month of September, 1898, the said invention had never been carried on in public and the records made in accordance therewith had never been used in public or been on sale or sold; but that since September, 1898, the process of said claim 1 has been carried on extensively and a number of records (set forth by said claim 3) made by such process in the city of Newark and in the Record Department of the American Graphophone Co., (his assignee) at No. 1159 Broadway, in the city of New York, and elsewhere.

FRANK L. CAPPS.

Subscribed and sworn to before me, this 22nd day of November, 1900.

WILLIAM E. HILLS,

[SEAL.] *Notary Public, No. 213, New York County.*

IN THE UNITED STATES PATENT OFFICE.

BEFORE THE EXAMINER OF INTERFERENCES.

CAPPS
vs. } Interference No. 20,769.
PETIT.

Preliminary Statement of Frank L. Capps.

STATE OF NEW YORK,
County of New York, } *ss:*

Frank L. Capps, being first duly sworn, deposes and says that he is the Frank L. Capps named in and who executed the application for U. S. Letters-patent for Celluloid Sound-records and the Method of Producing the Same, filed April 3, 1900, Serial No. 11,358, which application is involved in this interference with two pending applications of Ademor N. Petit, of Newark, New Jersey, under a declaration of interference dated October 13, 1900.

Deponent further avers that he conceived the invention disclosed by his said application (particularly as set forth by claims 1 and 3 thereof) on or about January 1, 1895; that he disclosed the same to others on or about January 1, 1895; that he made no drawings or models (as such) of his said invention; and that he reduced the said invention to practice on or about March 6, 1895, and again on January 16, 1896, on February 18th and 19th and March 2, 1896, and also on April 6th, 1898.

That prior to the month of September, 1898, the said invention had never been carried on in public and the records made in accordance therewith had never been used in public or been on sale or sold; but that since September, 1898, the process of said claim 1 has been carried on extensively and a number of records (set forth by said claim 3)

Dep
disclos
claims
That
about t
That
practic
obtain
1897, a
by pro
said cl
claim 1
that fro
process i
also an
he mad
for a lik
That
vention
cords m
in publi
1898, th
tensively
3) made
Record
(his assig
York, an

Subscr
Novembe

[SEA

---

made by such process in the city of Newark and in the Record Department of the American Graphophone Company (his assignee) at No. 1159 Broadway, in the city of New York, and elsewhere.

FRANK L. CAPPS.

Subscribed and sworn to before me, this sixth day of February, 1901.

ELISHA K. CAMP,
Notary Public, N. Y. Co.

[SEAL.]

IN THE UNITED STATES PATENT OFFICE.

CAPPS
vs. } Interference No. 20,769.
PETIT.

Notice of Taking Testimony.

To L. W. SERRELL & SON, ESQUIRES,
302 Broadway, New York City,
Attorneys of record for said Petit.

GENTLEMEN:

Please take notice that in the above-entitled interference proceedings now pending before the Commissioner of Patents, I shall take testimony on behalf of the applicant, Capps, at my office, No. 137 Broadway, New York City, beginning at two o'clock P. M. in the afternoon of next Thursday, the 24th instant. The testimony will be taken before Elisha K. Camp, Esq., a notary public, or other competent magistrate. The witnesses to be examined are the said Frank L. Capps and Victor H. Emmerson, both of Newark, New Jersey, and possibly others. The direct examination will probably be completed the same day, but will be continued from day to day if necessary. You are invited to attend and cross-examine.

New York City, January 19, 1901.

PHILIP MAURO,
Attorney of Record for Capps.

Service of the foregoing notice admitted this 21st day of January, 1901.

L. W. SERRELL & SON,
Attorneys for A. N. Petit.

IN THE UNITED STATES PATENT OFFICE.

Capps
vs. } Interference No. 20,769.
Petit.

Depositions on Behalf of Capps.

New York, *Jan. 24, 1901.*

Met pursuant to the annexed notice.

Present: C. A. L. Massie, Esq., representing Philip Mauro, Esq., on behalf of applicant, Capps.
George T. Pinckney, Esq., representing L. W. Serrell & Son, on behalf of applicant, Petit;
Ellsworth A. Hawthorne and F. M. Prescott, Esqs., being interested in the application of the said Petit were present by consent. Mr. Petit was also present.

Mr. Massie states on behalf of applicant Capps, that he has been advised within the last day or two that there is newly discovered documentary evidence establishing the facts that Mr. Capps completed the invention in controversy and disclosed the same to others and reduced it to practice at dates earlier than those given in his preliminary statement; that this will necessitate the filing of an amended preliminary statement. He therefore gives notice that a motion will be presented at an early date, requesting leave to file such amended statement.

(Counsel for Petit objects to this course proposed by Capps' counsel and of course must object to any testimony taken which antedates the preliminary statement already filed by Mr. Capps until after the determination of such motion.)

FRANK L. CAPPS.

And thereupon, Frank L. Capps, a witness in his own behalf, in answer to interrogatories propounded by Mr. Massie, testifies as follows, after being first duly sworn:

Question 1. Please state your name, age, residence, and occupation?

Answer. Frank L. Capps; thirty-one years old; Newark, New Jersey; machinist and manufacturer.

Q. 2. Are you the Frank L. Capps named in as the inventor, and who executed, the application for U. S. Letters-patent filed April 3, 1900, and bearing the Serial Number 11,358, which application is involved in this interference?

A. Yes.

Q. 3. Have you read the declaration of interference, dated Oct. 13, 1900, and reciting the two counts of this issue; and if so, do you understand the same?

A. Yes.

Q. 4. Please state when you first had a clear conception of the inventions forming the issues of this interference?

A. In the early part of the year 1895.

> (Answer objected to as contrary to the preliminary statement.)

> It is stipulated by and between counsel for the respective parties that the foregoing objection will apply as well to all answers disclosing facts that tend to establish dates earlier than those given in Mr. Capps' preliminary statement.

Q. 5. After you had conceived the invention when did you first disclose it to others?

A. I disclosed it about the month of March, 1895.

Q. 6. Kindly name one of the persons to whom you so disclosed the invention?

A. Mr. Victor H. Emerson.

Q. 7. What did you then proceed to do?

A. I proceeded to make a machine and carry out the invention.

Q. 8. Where is that machine now?

A. The machine is here and I now produce it.

Q. 9. Who made that machine?

A. I made it.

Q. 10. About what time?

A. I made it about the time I conceived the invention, during the spring of 1895.

Q. 11. Did you make any records by means of this machine?

A. Yes.

Q. 12. Have you any such record now?

A. Yes.

Q. 13. Where is it?

A. It is on the machine before you.

Q. 14. Is this record (indicating) the one you refer to?

A. It is.

Q. 15. Of what material?

A. Made of celluloid.

Q. 16. How did you make it?

A. By softening the surface of the celluloid with a solvent and afterwards engraving the record.

Q. 17. Do I understand that you made this particular record before us upon and by means of this particular machine also before us?

A. The record was made on this machine with the assistance of Mr. Emerson.

Q. 18. I forgot to ask you about what time, about when, you made this particular record before us?

A. About the 6th of March.

Q. 19. Is this a *sound*-record? that is to say, is it a record from which an understandable reproduction can be obtained?

A. It is.

> (Counsel for Capps offers the machine referred to in evidence and the magistrate is requested to mark the same "Capps Exhibit, Original Machine." He further offers in evidence the original engraved sound-record referred to; and the Examiner is requested to mark the same "Capp's Exhibit, Original Celluloid Record.")

> (Counsel for Petit objects to both of these exhibits for the same reason as noted to the testimony, that is as antedating the preliminary statement.)

Q. 20. Please state for the benefit of the Patent Office whether or not this celluloid record was produced by *engraving*; and if not, in what manner?

A. It was produced by engraving.

Q. 21. How do you fix the dates given by you in the preceding answers?

A. By reference to a record kept by Mr. Emerson.

Q. 22. Do you rely on any other contemporaneous facts or coincidences to assist your recollection?

A. I know that it was in the early spring of 1895 that I made the machine; I remember that distinctly.

Q. 23. What do you recollect about the building of this machine?

A. I remember that I had to make it nights and Sundays because I was regularly employed on other work and it was impossible for me to make it any other time, and I know that it was early in the year 1895 that it was made.

Q. 24. Where did you make the machine; at your own home?

A. No; I made it at the premises of the United States Phonograph Company in Newark where I was employed.

Q. 25. Had you no place of your own for doing such work?

A. I had no other place at that time.

Q. 26. Did you afterwards set up a place of your own for carrying on mechanical work?

A. I did. In November of 1895 I rented a place at 116 Sheffield street, Newark, for pursuing this work.

Q. 27. You are absolutely certain, then, that the matters you have testified to heretofore, took place before the date last given?

A. I am.

Q. 28. Please state in a general way, but without disclosing the details of any inventions or private methods of your own, whether or not you are now and have been for some time engaged in developing various schemes for producing celluloid records or other "permanent masters"?

A. Yes.

Q. 29. Can you explain for whom; at whose request?

A. I have done a great deal of it on my own account and have also continued it at the request of the American Graphophone Company.

Q. 30. Please state whether or not the management of that concern, your assignee of record, ever requested you to direct your inventive energies in different channels?

A. Yes; they have.

Q. 31. Your preliminary statement assigns certain dates; while your testimony just given shows that you made the invention at earlier dates. Please explain how this occurred.

A. The preliminary statement was based on the date of bills for celluloid, and we had no documentary evidence going back of that.

Q. 32. At the time you made the preliminary statement, then, you relied upon all the documentary evidence at your command, did you not?

A. Yes.

Q. 33. How long since is it that you became aware of other memoranda, etc., that leads you to believe that you made the inventions at an earlier date?

A. About two weeks ago.

Q. 34. Do I understand that you then (after reading this newly discovered evidence) recalled that the facts in such notes were correct; and are you satisfied now that those facts were correctly stated by you in your foregoing answers?

A. Yes.

Q. 35. Have you ever carried out the method of Count 2 and thereby produced the article of Count 1, in any other way than by the use of a solvent?

A. Yes.

Q. 36. Would you mind explaining how? What did you employ in place of adding a solvent?

A. I have engraved records with the assistance of heat or hot oil and have also engraved a record in dry celluloid.

Q. 37. Could you state, approximately, about how many records have been made by you, or under your direction, or by persons instructed by you? I mean records of the kind described in your application involved in this interference.

A. It would be very hard to state, probably a hundred.

Cross-examination by Mr. Pinckney:

×-Q. 38. When you first filed your preliminary statement in this case, Mr. Capps, it was based, was it not, on the documentary evidence in your possession referred to in your answer to Q. 31?

A. It was.

×-Q. 39. In the amended preliminary statement sworn to by you on the 22nd day of Nov., 1900, the dates are set back about one month as to time of conception, disclosure to others, and making the first record; what additional evidence or memoranda did you have in order to make this correction?

> (Counsel for Capps states that after the original preliminary statement was filed in the Patent Office, which made use of such expressions as "as early as," etc., the Examiner in charge of interferences wrote a letter objecting to this phraseology and calling for a new statement. The attorney for Mr. Capps thereupon instructed him that as these dates were to be regarded as *pleadings* only, and not as *evidence* in his favor, it was entirely proper to make use of the phraseology "on or about," and in order to be on the safe side, to set these dates down as somewhat earlier than the dates which his documentary evidence would establish.)

A. I had no additional evidence at that time, but executed the amended statement in accordance with the instructions that have just been recited by my counsel.

×-Q. 40. What was the nature of the other memoranda, etc., that leads you to believe that you made the invention at an earlier date than the dates set up in your preliminary statements?

A. Note books kept by Mr. Emerson.

×-Q. 41. How did your attention come to be called to the matter?

A. Mr. Emerson found them and showed them to me a short time ago.

×-Q. 42. What makes you satisfied that those facts are correctly stated?

A. Because I recall making the machine at that time, and experimenting with various substances for making records, of which celluloid was one.

×-Q. 43. About how many records did you make upon the machine marked "Capps' Exhibit, Original Machine"?

A. As nearly as I can tell there were ten or fifteen records made.

×-Q. 44. When and where were these records made?

A. Some of them were made at the premises of the United States Phonograph Company; about the month of March, 1895, we began making them. Some were made at Mr. Emerson's house, and later we made them on Sheffield Street where I rented some rooms.

×-Q. 45. Is the record marked "Capps' Exhibit, Original Celluloid Record," the only one of that lot now in your possession?

A. It is.

×-Q. 46. What became of the balance of that lot?

A. We used the celluloid in our experiments till some of it was used up, until it could not be used any more; some of it was used in moulding.

×-Q. 47. How did you treat the surface of this record, "Capps' Original Celluloid Record" before engraving?

A. The record which is on this machine was made by Mr. Emerson. I told him to put a solvent on it and after a time to engrave the record.

×-Q. 48. Were you present when this was done?

A. I cannot say that I was present when this particular one was made.

×-Q. 49. That is the first one over made, was it not?

A. I cannot say that this was the first one ever made.

×-Q. 50. Do you think there were any made prior to that time?

> Counsel for Capps requests to know what date is intended in this question.

U. S. PATENT
APR 1 1901
OFFICE.

The counsel for Petit replies that the date intended is the date prior to the making of the record marked "Capps Original Celluloid Record," as witness originally stated that he cannot say that it was the first record made or not.

A. I believe this is one of the earliest records that we made, but I do not know that it was the very first record.

×-Q. 51. You say that this record was made by Mr. Emerson; had you yourself made any record prior to that time?

A. I had not.

×-Q. 52. What was your employment in the year 1895?

A. I was employed by the United States Phonograph Company to make duplicating-machines for making phonograph records, and to keep them in repair.

×-Q. 53. Did the United States Phonograph Company at that time, during the year 1895, have the proper facility in its own place for making the machine such as the exhibit here produced?

A. I had a shop at the United States Phonograph Company's premises and the machinery belonged to me, and I had the facilities.

×-Q. 54. What material was used as a solvent for the record marked "Capps Original Celluloid Record"?

A. We used different solvents at that time and it may have been collodion or amyl-acetate, as we used both.

×-Q. 55. Were chips or a portion of the surface of the celluloid actually removed in placing the record upon this exhibit, "Capps Original Celluloid Record"?

A. Yes.

×-Q. 56. Were the chips of a sticky or gummy nature, or were they dry?

A. They were slightly gummy, not so sticky as to clog.

×-Q. 57. How do you fix the date when this exhibit was made?

A. I fix it by remembering the other work I was doing at the time, which was some spring-motor work, and I remember that I made this about the same time.

×-Q. 58. Did you have this spring motor matter in mind when you prepared your preliminary statement?

A. I did not.

×-Q. 59. What now brings it to your attention in connection with the making of the Capps Original Celluloid Record?

A. When Mr. Emerson showed me the record of the date of the experiments I took pains to find out just when I made the machine.

×-Q. 60. About what date was it when you did this work referred to in answer 29 at the request of the American Graphophone Company?

A. The work I have done in the celluloid records at the request of the American Graphophone Company has been carried on since the beginning of 1897.

×-Q. 61. During what period?

A. It began about the beginning of the year 1897, and I am still working on it.

×-Q. 62. Did you receive any compensation for this work done for the American Graphophone Company?

(Objected to as irrelevant and immaterial.)

A. I have received some compensation for this work.

×-Q. 63. You state in answer to question 37 that you have probably made a hundred records of the kind described in your application involved in this interference; about when were these made?

A. They have been made at different times during the last five years, and I cannot state that there were any particular number made at one time any more than at any other time.

X-Q. 64. What became of those records?

A. I have some of them, and some have been used for the material in them.

X-Q. 65. None of them have been put on the market for sale, have they?

A. They have not.

X-Q. 66. Were these records referred to flat records or cylinders?

A. The early records were flat records. Later on cylinders.

X-Q. 67. Were these records what you considered perfect records or that would reproduce sounds satisfactorily?

A. They reproduced the sounds correctly but it was hard to get the surface good.

X-Q. 68. Do you consider that they were records suitable for putting on the market for sale?

> (Objected to as irrelevant and immaterial. The commercial quality, or want of finish, not being identical with the fact of the record being capable of giving an intelligible reproduction.)
>
> (Counsel for Petit replies that since the witness states that the record had never been put on the market for sale his question was to learn the reason why.)
>
> (Counsel for Capps states in reply that as this invention and application has been assigned to the American Graphophone Company, the witness can have no knowledge of the business policy of that concern in order to enable him to answer the question.)

A. I have made records suitable for the market but not all of the hundred or more I made were of that quality.

X-Q. 69. Were any of the hundred that you referred to previously?

A. Yes, they were.

X-Q. 70. About how many of them?

A. About twenty that I know of that were made.

X-Q. 71. Were all of that lot made according to the process described in your application involved in this interference?

A. They were.

X-Q. 72. You have stated that the dates set up in your preliminary statement were based on the date of bills for celluloid. From whom was this celluloid purchased?

A. From the Celluloid Company.

Re-direct:

Re-D. Q. 73. You have stated that this exhibit record is an *engraved* record, and produced by the method of *engraving*, have you not?

A. I did.

Re-D. Q. 74. Please state for the benefit of the Patent Office whether or not you know as a fact that the American Graphophone Company owns and controls and enforces the pioneer patents covering engraved sound-records as articles of manufacture, as well as the method or process of engraving the same; and that the said company has obtained numerous decisions from the courts sustaining these patents and enjoining infringers from dealing in such articles and methods?

A. I know that to be a fact.

Re-D. Q. 75. Had the American Graphophone Company, during the years when you were producing this invention, or has it at any time ever authorized or licensed you to put engraved sound-records on the market?

A. It has not.

FRANK L. CAPPS.

VICTOR H. EMERSON.

And thereupon VICTOR H. EMERSON, a witness summoned in behalf of the applicant CAPPS, being first duly sworn, in answers to interrogatories propounded to him by Mr. MASSIE, testifies as follows:

Question 1. Please state your name, age, residence and occupation?

Answer. Victor H. Emerson; age, thirty-four; residence, Newark, New Jersey; occupation, superintendent of record department of Columbia Phonograph Company.

Q. 2. Are you the same Victor H. Emerson referred to by Mr. Capps as having been associated with him in carrying on his work?

A. I am.

Q. 3. Have you the memorandum book referred to by Mr. Capps in his answers?

A. I have, and I now produce the same.

Q. 4. Will you kindly read into the record the entry relating to the matter in controversy?

A. I read as follows:

"March 6—95. In celluloid scheme have the cutting points immersed in water to prevent sticking of thread to surface of cylinder.

"Get some thinner or solvent that will act slower—try mixing it with oil.

"Soften blank with boiling water. If temperature is not high enough to soften it use an oil that has a very high burning point."

Q. 5. In whose handwriting are these notes?

A. My own.

(Counsel for Petit objects to extracts unless books are put in evidence.)

Q. 6. When were these notes written?

A. On Mar. 6, 1895.

(Counsel for Petit wishes to note general objection to any testimony disclosed by this witness of dates prior to dates set forth in Mr. Capps' preliminary statement for same reason as entered against testimony by Mr. Capps, and it is understood that the same objection may be taken without repeating it, to the remaining portions of this testimony.)

Q. 7. Please explain what you understand is intended by the word "thread" in the first paragraph of the extract just quoted in answer to Q. 4?

A. We mean the shaving.

(Counsel for Capps explains that the book in question from which the extracts have been quoted contains a number of notes of inventions, secret processes, and other matters of a private nature which the witness does not care either to disclose to others or to allow others the possession of, and for that reason the book itself is not offered in evidence. Counsel for Capps offers to have a blue-print or facsimile of the page containing the note produced and put in evidence. He now hands the page in question to counsel for Petit, and requests that gentleman to agree that the extracts quoted in answer to Q. 4 are correct transcriptions of the original entry.)

(Counsel for Petit states that he will agree to the putting in of blue-print providing the book in question is produced at the hearing for reference if required.)

(Counsel for Capps replies that the blue-print or other facsimile will be produced for the use of counsel for Petit; and that the original book will be produced, if desired, at the hearing in the Patent Office, it being understood of course that the remaining pages of the same are to be sealed up.)

Q. 8. What is the object of these scratches extending across the page (indicating)?

A. Those marks are where my child scratched in the book with a lead pencil.

Q. 9. Were these notes made to record contemporaneous acts or suggestions?

A. They were.

Q. 10. Whose invention is it that was noted by these memoranda?

A. Mr. Frank L. Capps'.

Q. 11. Please state briefly what you remember about the matter, what was done by Mr. Capps and yourself, etc.?

A. Mr. Capps suggested that it would be an excellent idea to make a record that could be sent through the mail. Among the things suggested and worked on was celluloid. Mr. Capps started to made a machine and finished it just prior to this date of Mar. 5, and suggested to me that a good plan would be to soften celluloid by heat or a solvent. We experimented on both these lines, made records by applying solvent to a celluloid surface and allowing it to dry and engraving a record therein.

Q. 12. Is the machine before you, heretofore identified as "Capps Exhibit, Original Machine", the machine you referred to in your last answer?

A. With the exception of the support which now holds the diaphragm and the upright bars supporting the machine. The machine was originally set in a box, and when the machine was sent to Bridgeport, about two years ago, that support was lost.

(The witness here indicates the parts that were substituted for the original parts of the apparatus.)

Q. 13. These new parts you have just indicated do not cause the apparatus to operate any differently from the manner in which it operated in the beginning, do they?

A. It will operate exactly the same.

Q. 14. What can you say concerning the record heretofore identified as "Capps Exhibit, Original Celluloid Record"?

A. The record when first made was a perfect record. During the several years past it has shrunk and warped as all celluloid will.

Q. 15. You have made quite a number of records similar to this, have you not?

A. Very great many.

Q. 16. Possibly this very one?

A. This identical record was made by me.

Q. 17. You have listened to reproductions from it?

A. I have.

Q. 18. Was the record produced by engraving, a direct engraving action into or upon the celluloid?

A. It was.

Q. 19. Was the material removed by the cutting action of the recorder?

A. It was.

Q. 20. Please state briefly how you treated the celluloid to enable it to receive the record?

A. We had several kinds of "thinners" as solvents which were simple solvents and combinations of the solvent. I do not know which one of these solvents we used on this record. We put the solvent on the record which softened the surface and let it stand for about two weeks, and then engraved the record.

Q. 21. Have you any other notes or memoranda touching the matter in controversy?

A. I have, and now produce the same.

Q. 22. Will you kindly read the entry into the record?

A. I will; it is as follows:

"Jany. 16/96 sheet celluloid cyldr in record with collodion bath. Transfer O. K. but shrunk."

Q. 23. In whose handwriting is this, and when was it made?

A. The entry is in my handwriting and was made Jan. 16, 1896.

(Counsel for Capps makes the same explanation as with regard to the former note-book of this witness, and will obtain and furnish to counsel for Petit a blue-print or other reproduction of this page, and will have the original book ready for examination at the hearing. The book is now handed to counsel for Petit to examine.)

Q. 24. Have you any other and further entries.

A. I have, and now produce the same.

Q. 25. Will you read the same into the record?

A. I will. They are as follows:

"Ther. Thurs. Feb. 18, 1897 Wea.
Ther. Friday, 19," Get celluloid tubing for Capps.
Wea. Get sheet celluloid.
"Colodion."

Another entry is:

"Ther. Tues. Mar. 2, 1897 Wea.

* * *

"Ther. Wed. 3 Wea.
"15 ¢ colodion
"10 ¢ ether for celluloid solvent."

Q. 26. In whose handwriting are these two entries, and when were they made respectively?

A. They are both in my handwriting, the first entry was made Feb. 18, 1897, the next Feb. 19, 1897, and the next Mar. 3, 1897.

Q. 27. Are you always careful never to date an entry except as of the date upon which it was made; and never to note a transaction except as occurring upon the date on which it took place?

(Objected to as leading.)

A. I am.

(The same explanation is made touching this last book, which is a diary. Counsel for Capps will obtain blue-prints of the notes just quoted and furnish the same to the other side. And the original diary itself, with the other parts sealed up, will be produced at the hearing. The book is now offered for the inspection of counsel for Petit.)

Q. 28. Did you ever make records other than disc records, by the method described in the Capps application involved herein?

A. I did. And I now produce one.

Q. 29. Did you ever obtain any cylinders for the purpose?

A. I did.

Q. 30. Have you any now, if so will you kindly produce one?

A. I have, and I now produce the same.

Q. 31. Where did you get this cylinder, and about when?

A. I got this cylinder from the Celluloid Company prior to April 6, 1898.

Q. 32. Did you receive a bill for the same?

A. I did, and now produce it.

Q. 33. Is this cylinder before us one of the cylinders you received from the Celluloid Company which is referred to in this bill?

A. It is.

(The cylinder referred to in the answer, which it is noted is a brass cylinder supporting or covered by a celluloid tubing, is now offered in evidence; and the Examiner is requested to mark the same "Capps Exhibit, Celluloid-coated Cylinder.")

(The bill just referred to is offered in evidence; and the Examiner is requested to mark the same "Capps Exhibit, Emerson's Bill.")

Q. 34. Please explain how it happened that you did not find the various documents now offered, in time for the preparation of Mr. Capps' original preliminary statement?

A. I kept this memorandum at my home. In my office-desk. My father started in selling graphophones and records for the Columbia Phonograph Company and I sent the desk to his place of business; I should say he used it in my house first and then took the business from that place to 67 Central Ave., Newark.

Adjourned until 11 o'clock to-morrow.

New York, *Jan. 25, 1901.*

Met pursuant to adjournment.

Present: Mr. Massie, Mr. Pinckney and Mr. Petit.

(The witness then continued his answer to question 34): From there the desk was taken to 100 New Street. He continued his business there until he was stricken with apoplexy, and the doctor advised me to take all business from him. I ordered the office material packed up and sent to my house, and we surrendered the floor. The book was in the desk, and was packed away with all the correspondence of his phonograph and time-stamp business. I would like to correct part of my answer by saying that my father was not only in the phonograph business, but was also carrying on the time-stamping business. This material was packed in my cellar subsequent to September, 1899. We turned the time-stamp business over to a gentleman named Force, who was to take the exclusive agency, and made a contract with him for this purpose. Within a month past he has cancelled the contract, and we decided to go into the business again. My father asked me to get the time-stamp material together, to hunt up the old correspondence and customers and recircularize them, and see if we could not interest them in the new model-stamp. This I proceeded to do, and found this book mentioned in the lower desk drawer, mixed in with all the correspondence of his phonograph and time-stamp business. I spoke to Mr. Capps about this time, and he said it would be a good idea to speak to Mr. Massie about it. I neglected to do this until my attention was called to this case by Mr. Massie speaking to me over the telephone. That was about last Tuesday.

Q. 35. Have you any letters on the subject of the surrender of the contract for carrying on your father's business, which eventuated in your resumption of the same?

A. I have, and now produce the same.

Q. 36. I notice that these three letters you hand me are addressed to the Emerson Time Stamp Co., 100 New Street, Newark, New Jersey; please state whether or not these letters were received by you for that concern?

A. These letters were received by me for that concern.

Q. 37. Were the two letters signed F. M. Prescott received in reply to your letters?

A. They were.

Q. 38 Are you familiar with Mr. Prescott's handwriting?

A. I am, and identify these signatures as genuine.

Q. 39. The letter signed by the Force Company, was that written in continuance of personal interviews?

A. Personal interviews.

Q. 40. Is the Mr. Force whose name is on this last letter, from the "Wm. A. Force & Company" the gentleman referred to in your answer to Q. 34?

A. He is.

(Counsel for Capps offers the three letters in evidence, requesting the magistrate to mark the same "Capps Exhibit, Prescott letter, Dec. 8, 1900," "Prescott Letter, Dec. 26, 1900"; and "Force Letter, Dec. 12, 1900", respectively.)

(Counsel for Mr. Petit objects to exhibits as immaterial.)

The witness further states: Although these letters are addressed to the Emerson Time Stamp Co. all the business was attended to by either myself or by the Capps Manufacturing Company. The Emerson Time Stamp Company at this time had no one employed to do any work of any kind.

Q. 41. Please state whether or not at the time you had completed the entries in the book in question, and when you turned the desk over to your father, if you knew or realized that this book was in the desk?

A. He took the desk while I was not there, and I had no use for the book for some time after that. I did not realize at the time he took the desk that the book was in it.

Q. 42. How long have you been at the head of the record department of the Columbia Phonograph Company?

A. About four years.

Q. 43. What was your regular occupation before that time?

A. I was president of the United States Phonograph Company and had charge of all their record making.

Q. 44. How long have you been engaged in record making?

A. Since about 1890.

Q. 45. Do you consider yourself as thoroughly experienced in the making of sound-records, and as an expert in this business?

A. I do.

Q. 46. Please state, if you can, what enables you to satisfy yourself that the celluloid record—"Capps Exhibit, Original Celluloid Record"—is the one made by yourself, as stated?

A. At the time this record was made I made a wax disc record about the size of a gramophone record, and from that I made a soft beeswax negative, the object being to mould or impress celluloid records. This was on a table in the kitchen of my house at 208 Orange Street, Newark, New Jersey, where I was at that time making our first experiment. I remember distinctly flowing this record with solvent and laying it on the work bench together with all of the other apparatus. Some one accidentally picked up this wax negative, presumably to look at it, and laid it down over this soft celluloid blank while the surface was still in a liquid state. The impression of that negative is now on this particular record.

Q. 47. Do you refer to the curved markings extending, one of them a little beyond the centre of the record, and the other nearer the edge, together with the intermediate fainter indication?

A. I do.

Q. 48. Is there any other fact that as an expert you can testify to?

A. Yes; the blue record you have was made about seven months ago and still smells of the solvent. The record in question has no such smell.

(The note book of the witness, bearing the entry of March, 1895, and referred to in his answer to Q. 4, is identified as "Capps' Exhibit, Emerson Note Book.")

(The memorandum book bearing the entry dated Jan., 1896, and referred to in answer to Q. 22, is identified as "Capps' Exhibit, Emerson Memorandum Book.")

(The diary bearing the entries of Feb. and Mar., 1897, and referred to in answer to Q. 25, is identified as "Capps' Exhibit, Emerson Diary."

(It is agreed that the parts of the machine—"Capps Exhibit, Original Machine"—pointed out by Mr. Emerson as being substituted for the original parts that have been mislaid, are: (1) the two L bars screwed to the wooden base-plate; (2) the heavy metal piece extending horizontally from the slide; (3) the vertical standard rising from said heavy piece; and (4) the brass angle-piece carried by the last-named and itself supporting the speaker-frame).

Cross-examination :

×-Q. 49. Which particular book do you refer to as having been discovered in your desk?

A. This book (producing it), identified as "Capps' Exhibit, Emerson Note Book," bearing the entry of March, 1895.

×-Q. 50. Do you remember when this was put in your desk?

A. At about 1898.

×-Q. 51. Can't you fix the time more definite?

A. We bought this desk when we first started the phonograph business in Newark; I think that was in 1897 or the first part of 1898.

×-Q. 52. How long is it since you saw that book?

A. The last time I saw that was shortly after September, 1899.

×-Q. 53. Is this the only one, of the several memorandum books which you have mentioned in your testimony, that you discovered in your desk recently?

A. It is.

×-Q. 54. Where have the other memorandum books referred to been kept?

A. They have been in the possession of Mr. Massie for some time.

×-Q. 55. How long a time have they been in Mr. Massie's possession?

A. About two months.

×-Q. 56. Where had they been kept prior to this time?

A. The flat memorandum book was started at my house on Orange Street, taken to Sheffield Street when we moved there and has been in Mr. Capps' work shop and moved around with Mr. Capps in his various work shops. The little pocket diary was kept in the bottom drawer of my wife's writing desk at home.

×-Q. 57. Are the several books and memoranda from which extracts have been put on the record your personal property?

A. They are.

×-Q. 58. Been in your possession continually up to the time they were placed in the hands of your counsel?

A. Yes, sir.

×-Q. 59. Was Mr. Capps aware that you had kept such memoranda?

(Objected to as calling for the witness's knowledge of the state of mind of another party not present, and therefore as incompetent.)

Raymond R. Wile Research Library

A. Mr. Capps had no knowledge of the book at my house; he did know of the memoranda book at the work shop. The book at my house is a personal one and I had memorandums in it since 1887, long before I knew Mr. Capps.

×-Q. 60. These experiments I understand you to have said were made at Mr. Capps' suggestion, were they not?

A. They were.

×-Q. 61. Did he ask you to keep memorandums of such experiments that you made according to his suggestions?

A. He did not. He never kept memorandums himself, and these entries were not on experiments made but mere suggestions of work to be done.

×-Q. 62. Then the work had not been done at the dates named in the extracts, is that correct?

A. That is not correct. We completed our work before the date of the entry and these were suggestions for improvement.

×-Q. 63. What do I understand by improvements; was the word actually done at that time of a different nature?

A. It was engraving in celluloid, but the fine qualities of articulation were not as good as those in wax.

×-Q. 64. Did Mr. Capps consult you in regard to dates in connection with the preparation of his preliminary statement filed in this case?

A. He did.

×-Q. 65. Did you not at that time remember the fact of having made these memorandums and experiments?

A. I remember the experiments, but we had no data that would fix the date just as to whether it was six or seven years ago.

×-Q. 66. Did you at that time think that it was as long ago as six or seven years?

A. Personally my impression was that it was. But in talking with Mr. Mauro (Capps' attorney of record) in a case in which a Mr. Macdonald was interested and I a witness, he told me that he did not want any evidence of any kind unless it was substantiated by other witnesses or documentary proof; and for that reason we did not say what we thought, but stood by the record as it existed.

×-Q. 67. Do you feel certain that the machine marked "Capps Exhibit, Original Machine", was made in March, 1895?

A. It was made prior to that date.

×-Q. 68. Do you know who made it?

A. Mr. Frank L. Capps made it, and I helped design it.

×-Q. 69. Do you know where it was made?

A. It was made in Mr. Capps' machine shop in the building occupied by the United States Phonograph Company.

×-Q. 70. Was it necessary to construct a special machine to make your experiment of the Capps' Original Record?

A. It was not necessary, of course; but we were so sure at the time, that we thought we would start in and complete the entire thing.

×-Q. 71. Can you swear positively that the record here present marked "Capps' Original Celluloid Record" is the identical record which you have stated was made by you in 1895?

A. I am positive that it is.

×-Q. 72. Did you shave the surface of the celluloid disc to make it smooth before engraving the record?

A. I used a blank exactly as Mr. Capps gave it to me.

×-Q. 73. Do you know whether the surface had been shaved?

A. I do not.

X-Q. 74. Do you consider it necessary that the surface should be shaved or smooth before engraving the record?

(Counsel for Capps asks whether the witness is interrogated concerning his own understanding and interpretation of the Capps invention and system as set forth by the Capps application involved in this interference, or whether he is asked concerning his own general ideas touching the production of engraved celluloid records?)

(Counsel for Petit states that the witness has stated himself an expert in this line, and the question is asked for his own opinion as an expert.)

(The question is objected to in this view, as being impertinent and immaterial. The witness is further instructed that he need not disclose any secret information or private knowledge he may possess touching the handling of celluloid or the production of celluloid sound-records. The witness is further instructed that if he recalls anything in connection with what was actually done in carrying out the experiments to which he and Mr. Capps have already testified, he must answer the same.)

(Counsel for Petit replies that he has no desire to seek any information as to any private matters, but he understands from his client, Mr. Petit, that it is a well-known fact that it is necessary to smooth the surface of celluloid before the engraving can be properly performed, and counsel for Petit simply asks the views of the witness on the subject.)

A. We have made records both ways. The blue record I now show you was shaved.

X-Q. 75. In whose possession has the machine "Capps Exhibit, Original Machine," been since it was made?

A. It was in Mr. Capps' possession up to about two years ago when he sold his processes to the American Graphophone Company, and it was then shipped to the factory of the American Graphophone Company at Bridgeport, Conn. The top arm, meaning the recording device, which is fastened to the brass angle-plate was kept in Mr. Capps' possession.

X-Q. 76. Are you sure that there are no other changes in the machine than those specified by you in your direct examination?

A. There are none.

X-Q. 77. How often did you see the machine after it was made, up to the time it was sent to Bridgeport?

A. I made records on the machine myself for a long while after it was made, and saw it in Mr. Capps' private laboratory after he moved to Market Street, Newark, also in his factory at 100 New Street, Newark, N. J. It was there in the back room on the second floor where we had a room for conducting celluloid work. Mr. Capps moved to New Street about the latter part of 1899.

X-Q. 78. When did you next see this machine after that date?

A. I saw it several times at Bridgeport, Conn., where it was turned over to Mr. Funnell for the purpose of making disc celluloid records.

X-Q. 79. In whose possession has the record marked "Capps Exhibit, Celluloid Record," been since it was made, if you know?

A. That was in the possession of Mr. Capps and was in his private closet with many other exhibits.

X-Q. 80. When did you last see this exhibit prior to this examination?

A. The exhibit was in his private desk as I stated and I suppose I have seen it several times during the past three years.

×-Q. 81. Is it in the same condition now as when you last saw it?

A. It is in the same condition now as when I saw it about a year ago, except the centre hole has been enlarged to fit the toy doll for the purpose of reproduction. This was cut out yesterday.

×-Q. 82. This Exhibit "Celluloid-Coated Cylinder" was made by you, I understand; is that correct?

A. The brass tubing was made by Mr. Capps, and I took it to the Celluloid Company and had them coat it with celluloid.

×-Q. 83. Is this the only one of the kind that was made by you?

A. No, sir.

×-Q. 84. How many of them were made by you?

A. There were five cylinders of that kind made.

×-Q. 85. Do you know where the other four are?

A. In making our experiments on these we would make records on them, then shave them down to put other records on; two of them were burned by catching fire from our hot oil apparatus.

×-Q. 86. Is there a record on this particular cylinder here?

A. There is not.

×-Q. 87. Were there records made on the others?

A. There were.

×-Q. 88. Were they made according to the process described in Mr. Capps' application involved in this interference?

A. I do not recollect now whether his application covers the heating process or not. If it does, then we made records on these blanks according to his specification.

×-Q. 89. You have stated that the record marked "Capps' Original Celluloid Record" made by you was allowed to stand about two weeks after treating the surface of the celluloid with a solvent before engraving it; does it make any difference, as regards the time necessary for celluloid to stand after softening before engraving, whether one material is used as a solvent or another?

A. It does; some solvents dry almost instantly and others take a long while to dry.

×-Q. 90. You have stated in your direct examination that you did not remember what was used as a solvent in treating the surface of this particular exhibit; how do you remember that it stood two weeks before engraving of it, when you do not know what material was used as a solvent?

A. The condition of engraving a record is one readily determined by feeling the character of the recording surface, or pricking it with a knife, for instance, to tell whether it is too viscous. I let this record stand until I thought it was about time to engrave it.

Re-direct:

(Counsel for Capps states that he understands counsel for Petit asked the witness as to the memoradum *books*. In order to avoid any misunderstanding he desires to state that the bill put in evidence was left with him about the time Capps' application involved herein was prepared—that is to say about March or April, 1900.)

Re-D. Q. 91. Please state whether or not it has been your experience that celluloid when treated with different solvents retains the consistency necessary for direct engraving for an appreciable or considerable length of time?

A. It does.

Re-D. Q. 92. When you obtain celluloid from the Celluloid Company, or in the open market, is its surface invariably rough?

A. It generally is; not in the sense of being scratchy, but it has ridges more or less.

Re-D. Q. 93. In assisting Mr. Capps to prepare his preliminary statement, please state whether or not you then gave him the benefit of all the documentary evidence at that time at your command?

A. I did.

Re-D. Q. 94. In explaining your father's business and the whereabouts of your desk and the book, etc., you have referred once or twice to the date September, 1899. I do not recall now what it was that you fixed by that date; please state if you can what event took place or why you rely upon this particular date?

A. Because I know it was about that time I missed the book.

Re-D. Q. 95. Are you familiar with many other machines resembling the Capps' Exhibit Machine before you in appearance?

A. I am familiar with other disc machines; familiar with all the types of talking machines ever put on the market.

Re-D. Q. 96. Would you be liable to mistake some other machine of those you have just referred to for this particular exhibit?

A. This is the only machine of its kind ever made and that I ever saw.

V. H. EMERSON.

Close of Capps' *prima facie* proofs.

(Counsel for Capps again gives notice that at early date he will serve upon the attorneys for Petit a notice of motion for leave to amend the preliminary statement of the applicant, Capps, by setting up as his date of conception and disclosure to others, Jan. 1, 1895; and as the dates of his actual reduction to practice Mar. 6, 1895; Jan. 16, 1896; Feb. 18, and Feb. 19, and March 2, 1896; and also April 6, 1898.)

(Counsel for Petit requests that the magistrate note that his cross-examination of the witness is not intended as a waiver of any objections, but is merely *de bene esse*.

IN THE UNITED STATES PATENT OFFICE.

CAPPS
vs. } Interference No. 20,769.
PETIT.

Certificate.

STATE AND COUNTY OF NEW YORK, *ss:*

I, ELISHA K. CAMP, a notary public within and for the county of New York, State of New York, do hereby certify that the foregoing depositions of Frank L. Capps and Victor H. Emerson were taken on behalf of said Capps in pursuance of the notice hereto annexed, before me, at No. 135 Broadway, borough of Manhattan, city and State of New York, on the 24th and 25th days of January, 1901; that the said witnesses were by me duly sworn; that the testimony of said witnesses was written out by Miss Josephine Taylor in my presence; that the opposing party was represented by George T. Pinckney, Esq., representing Messrs. L. W. Serrell & Son, and the applicant, Petit, was present in person, and that Messrs. Ellsworth A. Hawthorne and F. M. Prescott, having an interest in the application of the said Petit were present by consent on the first day of taking the testimony; that the said testimony was taken at the place and date aforesaid, commencing at two o'clock in the afternoon and adjourning at five o'clock of the same day, and resuming at eleven o'clock in the forenoon of the next day, Jan. 25, and closing at one o'clock P. M. of that same day; and that I am not connected by blood or marriage with either of said parties, nor interested directly or indirectly in the matter in controversy.

In testimony whereof I have hereunto set my hand and affixed my seal of office in the county and State aforesaid, this sixth day of February, 1901.

ELISHA K. CAMP,
[SEAL.] *Notary Public, N. Y. Co.*

[Ten-cent United States Internal Revenue stamp, cancelled.]

IN THE UNITED STATES PATENT OFFICE.

CAPPS
vs. } Interference No. 20,769.
PETIT.

Notice of Taking Testimony.

Please take notice that on March 4, 1901, I shall proceed to take testimony *in rebuttal* on behalf of said Capps in the above-entitled interference proceedings. The testimony will be taken at my office, No. 137 Broadway, in this city, before Elisha K. Camp, Esq., or other competent official; and will begin at 10.30 A. M. of March 4, 1901, and will probably be completed that day—if not, it will be continued on the day following. The witnesses to be examined are Victor H. Emerson, ——— Gregory of New York City, James K. Reynard, and Len Spencer, both of New York City, and possibly others.

You are invited to be present and cross-examine the witnesses.

Dated New York City,
Feb. 28, 1901.

PHILIP MAURO,
Attorney of Record for said Capps.

To MESSRS. L. W. SERREL & SON,
Attorneys of Record for said Petit,
302 Broadway, New York City.

Receipt of the foregoing notice acknowledged this 1st day of March, 1901.

L. W. SERRELL & SON,
Attorneys of Record for Petit.

IN THE UNITED STATES PATENT OFFICE.

CAPPS
vs. } Interference No. 20,769.
PETIT.

Capps Testimony in Rebuttal.

NEW YORK, *March 4, 1901.*

Met pursuant to annexed notice at the office of Philip Mauro, Esq., 137 Broadway, 10.30 A. M.

Present: Mr. MASSIE on behalf of applicant, Capps; and
Mr. PINCKNEY on behalf of applicant, Petit;
Mr. PETIT, being also present in person.

CHARLES B. GREGORY.

And thereupon CHARLES B. GREGORY, a witness produced on behalf of Capps, being first duly sworn, testifies as follows, in response to interrogatories propounded to him by Mr. MASSIE:

Question 1. Please state your name, age, residence, and occupation?

Answer. Charles B. Gregory; twenty; residence, 122 East 26th Street; occupation, employee of Columbia Phonograph Co., General, corner 27th St. and Broadway.

Q. 2. Mr. Gregory, where were you working during the month of March, 1900?

A. Over in Newark for Mr. Emerson, Mr. Capps and Mr. Smith.

Q. 3. You have read the application of Mr. Capps involved in this interference; do you understand the same?

A. Yes.

Q. 4. When did you first learn of this method of producing sound-records?

A. At the end of March, 1900.

Q. 5. Did you yourself actually make any record by this method?

A. Yes.

Q. 6. Please state briefly how you made these records. What did you do?

A. By applying a solvent to the surface of celluloid. There are probably half a dozen different kinds of solvents. Then after waiting a suitable time either duplicating or recording sound on to a cylinder.

Q. 7. Did you ever listen to a reproduction from any of these records thus made by you?

A. Yes.

Q. 8. Were they understandable reproductions; that is, did you regard them as salable?

A. Well fifty per cent. of them were salable; they were all understandable.

Q. 9. What was your regular employment during the month of April, 1900?

A. Working on celluloid records.

Q. 10. Where were you employed?

A. Either in Newark or Columbia Phonograph Co. in New York.

Q. 11. Did you make celluloid records in this period also?

A. Yes.

Q. 12. How?

A. As I said before, applying a solvent to the surface of the celluloid and then either duplicating or recording.

Q. 13. Were the records made by you in New York for the Columbia Company *good* records?

A. Not all of them, but fifty per cent.

Q. 14. Can you state whether or not the management of the Columbia Company was satisfied with your work in this line?

A. I think so, according to appearances.

Q. 15. What reason?

A. Because in July Mr. Emerson put in an application to Mr. Easton for an increase in salary for me.

Q. 16. Did you get an increase in salary?

A. Yes.

Cross-examination by Mr. Pinckney.

×-Q. 17. Is there any business connection between the Columbia Phonograph Co. by whom you are employed and the American Graphophone Co.?

A. Well, that is something I do not know anything about.

(Counsel for Capps admits that the Columbia Co. just referred to is the selling agent of the American Graphophone Co.)

×-Q. 18. Who gave you the instructions for making the records which you testify to as having been made in March, 1900?

A. Mr. Emerson.

×-Q. 19. Will you please mention what material you used as a solvent in making those records?

A. Amyl-acetate, what is known as "thinner" for A. B. cement; acetic ether; nitro benzoin; ether.

×-Q. 20. How long after the treatment of the celluloid by these solvents was it before you recorded or put the record on?

A. Different solvents required different lengths of time; by adding a few drops of water to a solvent it retarded the action of it greatly.

×-Q. 21. Was the record put on by molding?

A. I never did it.

×-Q. 22. How did you do it?

A. By recording.

×-Q. 23. In what manner?

A. On a regular phonograph or duplicating machine.

×-Q. 24. With an ordinary style?

A. With an ordinary style.

×-Q. 25. Did you use the same process in making records you have stated you made in April, 1900?

A. Yes.

×-Q. 26. You have stated that portion of these records were salable articles; do you know whether or not any of them were ever sold or put on the market for sale?

A. No, none were ever sold to my knowledge.

×-Q. 27. You have stated in answer to Q. 20 that a few drops of water on the solvent would greatly retard the action; would the water mix with the solvent or in what way would it retard?

A. Some of the solvents.

×-Q. 28. Which ones?

A. That I do not remember perfectly, which.

Re-direct:

Re-D. Q. 29. Are you employed as a salesman by the Columbia Phonograph Co.?

A. No.

Re-D. Q. 30. Were you so employed at any time by that Company?

A. Yes, for about two months, five years ago.

Re-D. Q. 31. That was the only time?

A. Yes.

CHARLES B. GREGORY.

JAMES K. REYNARD.

James K. Reynard, a witness produced on behalf of applicant, Capps, being first duly sworn, testified as follows, in response to interrogatories by Mr. Massie.

Question 1. Please state your name, age, residence and occupation?

Answer. James K. Reynard; age, forty; residence, 1261 Fortieth St., Brooklyn; New York Life Insurance Company.

Q. 2. You have recently read the application of Mr. Capps which is involved in this interference. Do you understand the same?

A. Yes.

Q. 3. Did you ever make a sound-record in celluloid by the method set out in this application?

A. Yes.

Q. 4. When, and where?

A. September, 1898, in New York City.

Q. 5. When after that?

A. In January, 1899, at 67 Central Avenue, Newark.

Q. 6. Please state briefly just what steps you took to make such records?

A. By softening celluloid with some sort of solvent and after it had partly dried recording in the usual way.

(The witness continues.)

It was a mistake in regard to the first time I made records in celluloid by the method you asked about. Instead of September, 1898, it should be January, 1899. The records I made in September were produced by molding.

Q. 7. Did you listen to reproductions from any of these records produced by you in the manner indicated in the first part of your answer?

A. Yes.

Q. 8. Were they understandable records?

A. Yes.

Q. 9. I forgot to ask you whether or not by "recording in the usual way" you mean *engraving*.

(Objected to as leading and prompting the witness.)

(Question withdrawn.)

Q. 10. Please state what you mean in your answer to Q. 6 by the words "recording in the usual way?"

A. Engraving.

Q. 11. Did you ever engrave records in celluloid at any time other than January, 1899?

A. Yes. I was engaged at different times, and I do not think there was a month intervening at any time when I wasn't working on some part of that process. Either assisting or under the direction of Mr. Frank L. Capps. This time I refer to means from January, 1899, up to November, 1900.

Q. 12. Whose invention did you understand this process and the records produced by it were?

A. Mr. Frank L. Capps.

Q. 13. In your answer to Q. 8 you said the records were understandable. How could you tell this?

A. By reproducing them.

Q. 14. On a phonograph?

A. Yes. I might add also on that special machine we had.

Q. 15. Where was this machine that you have just referred to?

A. The first time I used it was at 67 Central Ave., Newark.

Q. 16. What was this place, No. 67 Central Ave., Newark; and where did the machine come from, so far as you know?

A. This place 67 Central Ave. was a store room of which I had one corner which I used for experimental purposes. I mean by experimental purposes experimenting on what was called then the Capps process for making permanent masters.

Q. 17. This place you refer to was rented by whom?

A. By Mr. V. H. Emerson.

Q. 18. Where did this machine come from so far as you now recall?

A. From Mr. Frank L. Capps.

Q. 19. Please state as briefly as you can what this machine was?

A. This machine was made for the purpose of revolving a disc in order to engrave records on that disc.

Q. 20. How was it driven?

A. It was driven by spring motor.

Q. 21. Who made this spring motor?

A. The spring motor I used was a graphophone motor.

Q. 22. Who added it to the machine?

A. I did.

Q. 23. How was the machine to be driven before you added this motor, if you know?

A. The original mechanism for driving the machine was not brought to me.

Q. 24. How many celluloid records, speaking very roughly, do you suppose you engraved altogether.

A. Well, perhaps fifty.

Cross-examination:

X-Q. 25. How long have you been employed by the New York Life Ins. Co.?

(Objected to as immaterial.)

A. Since February 8, 1901.

×-Q. 26. What was your employment in 1900?

(Objected to as immaterial, except so far as witness has already testified in answer to Q. 11.)

A. In experimental work for Mr. Capps, Emerson and Smith, I also had charge of the permanent master department of the American Graphophone Co.

×-Q. 27. Was your occupation the same in 1899?

(Same objection.)

A. Most of the time experimenting for Mr. Capps, Smith and Emerson, the rest of the time for the American Graphophone Co.

×-Q. 28. What process did you use in making these records in 1899?

(Counsel for Capps inquires what records are intended by this question.)

(Counsel for Petit replies records intended are those which he stated he made in 1899.)

(Counsel for Capps rejoins that as to those records, the witness has already answered categorically, in answer to Q. 6 and suggests that it appears a waste of time to repeat the same question.)

A. I softened the surface of celluloid with suitable thinner or solvent and allowed it to dry about five minutes. Then proceeded to engrave the sound-waves in the usual way, with an ordinary recorder.

×-Q. 29. What do you mean by the term "suitable thinner"?

A. Acetate of amyl, ether and alcohol equal parts, special thinner for A. B. Cement, acetic ether, sulphuric ether and combinations of the same.

×-Q. 30. You have stated that you allowed the celluloid to stand about five minutes after treatment before recording; did you allow the same time on all the records made by you in January, 1899?

A. The different kinds of thinner require different lengths of time; five minutes is a good average.

×-Q. 31. What became of these records made by you in January, 1899?

A. Nearly all were taken to Bridgeport; some I lost track of altogether.

×-Q. 32. You have referred to a special machine being used in the making of these records; do you know who made that machine and when?

A. I have always understood that Mr. Frank L. Capps made it.

×-Q. 33. But you don't know from your own knowledge?

A. No, I don't know.

×-Q. 34. Was it necessary to use a special machine in making those records instead of using machines already on the market?

A. I don't think so. I used it because it was convenient.

JAMES K. REYNARD.

WILLIAM HERBERT SMITH.

William Herbert Smith, a witness summoned in behalf of applicant, Capps, being first duly sworn, deposes as follows in answer to questions propounded to him by Mr. Massie.

Question 1. Please state your name, age, residence and occupation.

Answer. William Herbert Smith; residence, New York City; treasurer of American Graphophone Co., I am of lawful age.

Raymond R. Wile Research Library

Q. 2. Did you ever receive a celluloid record, engraved, from Mr. Victor H. Emerson; and if yea, please state about when you received it?

A. I received a sample celluloid record from Mr. Emerson that was an engraved record about one year ago. I am unable to accurately fix the date. It was delivered to me at the record room of the American Graphophone Co., at the corner of 27th St. and Broadway, New York City. I recall definitely that this record was in my possession when the American Graphophone Company occupied offices in the Washington Life Insurance Co. building. We moved from those offices to our present quarters in May, 1900. I am unable to state how long I had this record in my possession in those offices.

(The record just referred to by the witness is now offered in evidence, being identified as "Capps Exhibit, Smith Record.")

Q. 3. Do you know Charles B. Gregory, an employee of the Columbia Phonograph Co.?

A. I do.

Q. 4. Do you know anything about his work in engraving celluloid records?

A. I saw him in a room on the second floor at 27th St. and Broadway engaged in making celluloid records by the engraving process, and I think I saw the record which I have produced here made. I certainly saw a number of them made by Gregory at that place.

Q. 5. Please state whether or not it is the custom of your companies to put on the market the best original record it has. I mean does the American Graphophone Company have any use for good records other than as articles for sale?

A. The American Graphophone Co. does not market what we call original records, but does market a duplicate record, or a copy of the original.

Q. 6. Mr. E. A. Hawthorne and Mr. F. M. Prescott have testified concerning an interview held by them with Mr. E. D. Easton and state that you were present during this interview. Please state whether or not you recall what Mr. Easton said with regard to his company not being able to produce a celluloid record upon which the record would stay.

A. No such statement was made by Mr. Easton in my presence. I did not enter the room until after the interview with Mr. Hawthorne and Mr. Prescott had been continuing for some time, but I am unable to state how long.

WM. HERBERT SMITH.

LEONARD G. SPENCER.

And thereupon Leonard G. Spencer, a witness produced on behalf of applicant, Capps, being first duly sworn, in response to interrogatories by Mr. Massie testifies as follows:

Question 1. Please state your name, age, residence and occupation?

Answer. Leonard G. Spencer; 34 years; residence, 1315 35th St., Brooklyn; occupation, phonograph vocalist.

Q. 2. Have you ever made a record directly into or upon celluloid?

A. Yes, sir.

Q. 3. Can you state about when you did this, and where?

A. In the summer of 1897, June or July, in the private laboratory of Mr. V. H. Emerson at his residence, 67 Plane St., Newark, N. J.

(Counsel for Petit objects as being improper rebuttal testimony.)

(Counsel for Capps gladly welcomes this objection, and takes this opportunity of stating that he regards this rebutting testimony in the nature of being taken *de bene esse*; since he consideres the testimony of the witnesses, Hawthorne and Prescott, as to the operativeness of Capps' process, as entirely incompetent and inadmissible).

Q. 4. Who was present at the time you made the record in Mr. Emerson's laboratory?

A. Mr. V. H. Emerson and Frank L. Capps, and Mr. Emerson's little boys.

Q. 5. Did you sing into the machine?

A. I made a sample talking and singing records.

Q. 6. Did you listen to the reproduction?

A. I did.

Q. 7. Of what character were these reproductions, were they intelligible, understandable?

A. They were, fairly so, and I thought very good, although the machine that reproduced them would at times fail to "track." The talking record was particularly good.

Q. 8. As I understand your answer, whatever blemish occurred in the reproduction was attributable to mechanical feature of the talking-machine in failing to track, rather than to the poorness of the celluloid record you had just engraved?

A. I should attribute the imperfection in the reproduction to the machine, as Mr. Emerson showed me the cut on the celluloid record.

Q. 9. How do you fix the date you have given, viz, during the summer of 1897, as the time when you made these celluloid records?

A. It was about the time that I had some difficulty with the United States Phonograph Company.

Q. 10. This difficulty occurred about the early or middle part of 1897?

A. It did.

Cross-examination:

×-Q. 11. You have stated in answer to Q. 2 that you made a record directly upon or into celluloid?

A. Yes, sir.

×-Q. 12. How do you know that the substance was celluloid?

A. Mr. Emerson showed it to me, stating that it was such and it had the consistency and general appearance of a celluloid film.

×-Q. 13. But you did not have anything to do with the treatment of the celluloid prior to the record being made?

A. No, sir; my work was confined to the making of the record by speaking and singing selections on the celluloid.

×-Q. 14. That is, I understand, the only experience in making records that you ever had?

A. My only part in making records consisted in speaking or singing into a machine and listening to the reproductions therefrom.

×-Q. 15. From your own knowledge then you do not know what process had been used in the preparation of this record prior to the record being made?

A. I saw it, looked at the cut on it and felt the film and I am satisfied and believe that it was celluloid.

(Latter part of the answer objected to as hearsay.)

Re-direct:

Re-D. Q. 16. Can you state in a general way the material employed ordinarily for making graphophone and phonograph blanks?

A. Various compositions of wax, etc. Different shades of color and toughness, size.

Re-D. Q. 17. Was the thing you made the record upon at Mr. Emerson's in June or July, 1897, this ordinary wax-like composition?

A. It was not.

Re-D. Q. 18. Are you satisfied that you can distinguish celluloid from the ordinary wax-like composition of sound-records, if you have an opportunity of handling both and examining them closely?

A. Readily.

Re-D. Q. 19. Did you examine the record you made at Emerson's as above, and did I understand you to say that you were satisfied the same was celluloid?

A. I examined the result of the test made at that time carefully, as I was much interested in it, and I considered it a great achievement in the improvement of the art. And I am satisfied and convinced that the substance to which I spoke and sung was celluloid.

Re-D. Q. 20. Would you mind stating what interest you took in the scheme?

A. I offered to put money into it, as I was satisfied that it was a success, and subsequently did furnish money for experimental purposes.

Re-D. Q. 21. Would you mind stating briefly your occupation and places of business during the early part of the year 1897?

A. I was employed as a phonograph vocalist by the United States Phonograph Co., and to the best of my recollection embarked later in the business with Mr. V. H. Emerson at 19th Street and 5th Avenue, and after continuing business there for a short period only, subsequently entered the employ of the Columbia Phonograph Company.

Re-D. Q. 22. If I am not investigating your personal affairs too closely, would you mind stating why you left the establishment on Fifth Avenue with Mr. Emerson?

A. We had a fire.

Re-D. Q. 23. And it was shortly after this fire that you made the records at Mr. Emerson's, as already testified?

A. It was.

Re-cross examination:

Re-×-Q. Are you still in the employ of the Columbia Phonograph Company?

A. My arrangement expires May 1st next. Not a regular employee, but on piece work under contract; my time is virtually my own.

LEONARD G. SPENCER.

Recess until 2 P. M.

Met at 2 P. M. pursuant to adjournment. Present as before.

VICTOR H. EMERSON.

Thereupon, Victor H. Emerson, a witness produced on behalf of applicant, Capps, being first duly sworn, testifies as follows in answer to questions by Mr. Massie.

Question 1. Are you the Victor H. Emerson who has already testified in this case?

A. I am.

Q. 2. You have heard the testimony given this morning by Mr. Gregory. Please state briefly what you know of his work in engraving celluloid records, and of his promotion.

A. I started Mr. Gregory at work in making celluloid records by the engraving process at a room on the second floor of 1155 Broadway about a year ago. He worked there for some time, made a number of records and entered into the spirit of the matter so thoroughly that I recommended to Mr. Easton that his salary be increased. Mr. Easton did so.

Q. 3. You have also heard the testimony given by Mr. Smith this morning. Please state what you know about the making of the record introduced as "Capps' Exhibit, Smith Record"?

A. Mr. Smith was interested with me financially and otherwise in celluloid matters and I asked him to come downstairs and see how we were getting along. When we got there I asked Mr. Gregory to make a record for Mr. Smith. Mr. Gregory took a blank, applied a solvent to it, put it on a duplicating machine and engraved it. That record I gave Mr. Smith.

Q. 4. Does this exhibit now before us, "Capps Exhibit, Smith Record", strike you as being the same record you have just spoken of as made by Mr. Gregory in the presence of yourself and Mr. Smith, and afterwards given by you to Mr. Smith?

A. It does. I am pretty sure it is the same record because the subject-matter is the same and there were only two made from the same master that made this one. The other record was purple in color.

Q. 5. Is this purple record the one we had before us at the taking of Mr. Capps' testimony in chief?

A. I don't know; we made lots of purple records of various subjects.

Q. 6. You have heard the testimony of Mr. Spencer given this morning. Please state briefly what you know of his making records at your home in 1897 as testified to by him?

A. I left the phonograph business in Newark early in 1897 and went in business in New York. I had a place at 19th Street and Fifth Avenue, and we burned out there. After that time Mr. Easton engaged me to take charge of the record work of the Columbia Phonograph Co. I did so and in the summer of 1897 had the business well under way and again took up the question of celluloid records. At that time I had a laboratory in my house, and I arranged with Mr. Spencer to come there and make records for me.

Q. 7. Referring to the occasion of his first making records in celluloid, were you present when he made those records; and if so, please state what was done?

A. I was present. We had the disc machine already offered in evidence there, and discs of sheet celluloid which were dipped in thinner, allowed to stand, put on the machine, and Mr. Spencer sung and spoke through it.

Q. 8. Did you listen to reproductions from these records; if so, what can you say of the records?

A. The reproductions were good, articulation was perfect, and our only trouble was in keeping machine to track.

Q. 9. What interest, if any, did Mr. Spencer afterwards take in the invention?

A. He advanced money to carry on the work.

Q. 10. You have heard the testimony of Mr. Reynard given this morning. Who gave him the machine he has referred to?

A. I did.

Q. 11. What machine was this?

A. The same machine that is now on exhibit in this case.

Q. 12. What do you know about his adding a spring motor to this machine?

A. The spring motor was added by Mr. Reynard, who thought it would be easy to run it that way.

Q. 13. How was power transmitted from the spring motor to the machine proper?

A. The spring motor used was in reality a complete graphophone and was belted by a thread which ran over the pulley to the large pulley on the disc machine.

Q. 14. Just as the thread runs over the pulley of the hand device of the said Capps Exhibit machine to the large pulley of the engraving apparatus proper?

A. Just the same. The disc machine had to be elevated to meet the difference in height between the hand motor pulley and graphophone motor pulley.

Q. 15. Please state briefly what you know about Mr. Reynard engraving records in celluloid, and when?

A. I engaged Mr. Reynard to word on various celluloid inventions of Mr. Capps. About January, 1899, he engraved records on this disc machine and showed them to me.

Q. 16. Do you know Messrs. Albert O. Petit and Arthur P. Petit, brothers of Mr. A. N. Petit who is here present, and who have testified in behalf of the said A. N. Petit.

A. I do.

Q. 17. Do you know what designation their place of business has, and where the same is located?

A. It is known as the Edisonia; it is located at New and Halsey, Newark, N. J.

Cross-examination:

×-Q. 18. In answer to Q. 6 you state that you left the phonograph business in Newark early in 1897, and went in business in New York at 19th St. and Fifth Ave., and were burned out there; and that after that time Mr. Easton engaged you to take charge of the record work of the Columbia Phonograph Co., which you did in the summer of 1897, from which I understand that you were burned out in New York during the year 1897; is that correct?

A. That is correct.

VICTOR H. EMERSON.

(Counsel for Capps states that he has just received a telephone message from Mr. Capps to the effect that

Mr. Capps cannot come over from Newark this afternoon; but will be here without fail at two o'clock tomorrow afternoon.)

(Counsel for Capps offers in evidence U. S. Letters-patent No. 645,920, granted March 20, 1900, upon the application of Thomas B. Lambert, the same being for the process of making celluloid records. The exhibit is marked "Capps Exhibit, Lambert Celluloid Patent.")

Adjourned until two o'clock March 5, 1901.

NEW YORK, *March 5, 1901.*

Met pursuant to adjournment; present as before.

FRANK L. CAPPS.

And thereupon FRANK L. CAPPS, a witness produced in his own behalf, being first duly sworn, in answer to questions by Mr. MASSIE, testifies as follows:

Question 1. Are you the Frank L. Capps whose application is involved in this interference and who has already testified herein?

Answer. Yes.

Q. 2. Have you very recently engraved any sound-records in celluloid by the process described in your application involved in this interference?

A. I have, and I now produce two I made last night.

Q. 3. Please state what material these two records consist of?

A. They are made of celluloid.

Q. 4. Do they contain sound-records?

A. They do.

Q. 5. How were the records produced on the celluloid?

A. They were produced by first putting the cylinders in alcohol, allowing them to dry for five minutes, and then the record was engraved on them on a phonograph with a graphophone recorder.

Q. 6. Did you listen to the reproductions from these two records?

A. I did.

Q. 7. Were they understandable?

A. They were.

Q. 8. Who was present at the time you made these two records?

A. Mr. F. W. Bird and Mr. J. W. Housel, Jr., who are now present, and Mr. V. H. Emerson.

(The records just referred to are now offered in evidence as "Capps' Exhibit, Celluloid Record of March 4, 1901, No. 1" and same "No. 2.")

Q. 9. Have you made any other records since those two just offered in evidence?

A. Yes, I have; and I now produce three.

Q. 10. What material are these three records composed of?

A. They are celluloid, the same as the others.

Q. 11. When were they made?

A. They were made to-day.

Q. 12. Do they contain sound-records?

A. Yes.

Q. 13. How were the records put on them?

A. They were put on the same as the other two just offered in evidence.

Q. 14. Who made this record (indicating)?

A. This record was made by Mr. George J. Gaskin in my presence.

Q. 14. Who made this one (indicating)?

A. This record was made by Mr. J. W. Myers in my presence.

Q. 15. And who made this one (indicating)?

A. This record was made by Mr. Leonard G. Spencer in my presence.

Q. 16. Have you listened to reproductions from these three records?

A. Yes, I have listened to all of them and the reproduction is perfect.

(The three records are now offered in evidence and marked "Capps' Exhibit, Gaskin Celluloid Record," "Capps' Exhibit, Myers Celluloid Record," and "Capps' Exhibit, Spencer Celluloid Record.")

Q. 17. Referring to all five of the exhibits just offered in evidence, please state briefly exactly the action of the graphophone recorder in producing the record upon the celluloid.

A. It cut a long shaving.

Q. 18. Can you state briefly the apparent condition or consistency of the celluloid at the time the recording thereon was taking place?

A. The stylus cut a perfectly free shaving, the same as if cutting in wax.

Cross-examination:

×-Q. 19. Who were these celluloid cylinders made by?

A. I do not know who made them.

×-Q. 20. Do you know where they came from?

A. I bought them in a supply house where talking machine supplies are sold.

×-Q. 21. Are these all you ever bought for experimental purposes?

(Objected to as immaterial and as improper cross-examination.)

A. They are not all I ever bought.

×-Q. 22. Do you know who are the manufacturers of this style of cylinder?

A. I do not know.

×-Q. 23. Are cylinders of this character on the market for sale?

A. Yes, they are. I do not mean with the records engraved on them.

×-Q. 24. Will you swear positively that the surfaces of these cylinders were not treated in any manner or by any material other than alcohol alone, before the records were engraved on them?

A. Yes.

×-Q. 25. You have stated that the cylinder marked "Capps' Exhibit Spencer Celluloid Record" was made by Mr. Leonard G. Spencer in your presence. What did Mr. Spencer do towards making the record?

A. Mr. Spencer recited into the graphophone. He had nothing whatever to do with the treatment of the celluloid. I would add with regard to all five of these exhibit records that in every case I myself treated the celluloid and put it on the machine, and then the other parties did the talking or singing into the machine. They had nothing to do with the treatment of the celluloid.

FRANK L. CAPPS.

FRANK W. BIRD.

And thereupon Frank W. Bird, a witness produced on behalf of Mr. Capps, after being duly sworn, in answer to questions by Mr. Massie, testified as follows:

Question 1. Please state your name, age, residence and occupation.

Answer. Frank W. Bird; of lawful age; Newark, N. J.; clerk.

Q. 2. You have heard the testimony just given by Mr. Capps. Please state what you know of the two records offered in evidence as "Capps' Exhibits of March 4, 1901."

A. I saw Mr. Capps take both records and place them into the alcohol solution, then let them stand for five minutes and put them on the machine, and a record made there upon it, and immediately taken off and reproduced.

Q. 3. What sort of a machine was it?

A. It was an electric phonograph.

Q. 4. Who actually made the record?

A. The record was made by Mr. Emerson.

Q. 5. What can you say of the reproduction you heard from these two exhibits?

A. The reproduction was very plain and distinct.

Q. 6. How did you come to note the time elapsing between Mr. Capps treating the celluloid and Mr. Emerson's making the record?

A. The watch was held by Mr. Housel and Mr. Capps, and I took notice principally on the watch held by Mr. Housel, as he showed it to me at the start and at the finish.

Q. 7. Do you identify these two records—"Capps' Exhibit, Celluloid Records of March 4, 1901"—as the same two records made in your presence yesterday afternoon?

A. Yes, sir, I do. By my initials which I placed on them.

Cross-examination:

×-Q. 8. Where was it these records were made?

A. At 100 New St., Newark, N. J.

×-Q. 9. Were you invited there for the purpose of witnessing the making of these records?

A. Yes, I was.

×-Q. 10. Had you ever seen records made before?

A. Yes, sir, I have.

×-Q. 11. In what manner?

(Objected to as immaterial.)

A. They were made in the very identical same manner.

×-Q. 12. May I ask you to describe the manner?

A. The blank was put on the machine and spoken into by the performer and then taken off and reproduced.

×-Q. 13. But you don't know of your own knowledge whether the surface of the celluloid had been treated in any manner or not, do you?

A. No, I do not.

×-Q. 14. Do you know whether or not the record can be cut in the surface of celluloid without the surface of the celluloid having been treated in any manner?

> (Objected to as immaterial and further as not proper cross-examination. Also objected to as incompetent; the witness has not been offered as an expert witness on the subject of celluloid but as a witness to matters of fact.

A. No, sir, I don't know.

×-Q. 15. How do you know that it was an alcohol solution in which Mr. Capps placed these cylinders before the records were made?

A. It smelled like alcohol and was taken from a bottle with alcohol marked upon it.

×-Q. 16. But you don't know positively of your own knowledge whether any other ingredients were contained in the alcohol or not, do you?

A. No, sir.

×-Q. 17. You would not be able to tell, would you, for instance by the smell, whether or not other ingredients were in the alcohol?

A. Well, it smelled very strongly of alcohol. No, sir, I could not.

Re-direct:

Re-D. Q. 18. Mr. Bird, in the cross-examination you were asked if you had ever seen records made before, and answered that you had; did you intend by your answer to mean that you had seen records made on celluloid, or that you had seen records made on the ordinary graphophone or phonograph blanks?

A. I saw them made on the ordinary graphophone blanks, but not on celluloid.

Re-D. Q. 19. Are you satisfied that you could distinguish between the ordinary graphophone blank and one of the celluloid exhibits now before you?

A. Yes, sir.

Re-D. Q. 20. Before Mr. Emerson spoke into the phonograph yesterday, what had Mr. Capps done to the celluloid?

A. He put it into the alcohol bath.

Re-D. Q. 21. What, if anything, did he do before putting the celluloid cylinders into the bath?

A. Nothing that I saw.

Re-D. Q. 22. Did you see him put anything, any chemical, etc., into the alcohol bath?

A. No.

Re-D. Q. 23. Were you watching him carefully all the time?

A. Yes, sir.

Re-D. Q. 24. If he had added any ingredient to the bath you would have seen it?

A. Yes, sir.

Re-cross examination:

Re-X-Q. 25. Did you see Mr. Capps prepare the bath yourself, or was it already prepared when you arrived?

A. He poured it directly from the bottle into the glass cylinder or vessel.

Re-X-Q. 26. You didn't see him put anything into the bottle?

A. No, sir.

Re-X-Q. 27. You were not with him when he bought the alcohol?

A. No, sir.

Re-X-Q. 28. The bottle stood there when you arrived and you saw him pour it from the bottle into the cylinder?

A. Yes. sir.

Re-X-Q. 29. How would you be able to distinguish between the ordinary graphophone blank and one of these celluloid exhibits now before you?

A. One is a wax cylinder and much softer. There are entirely different color.

Re-X-Q. 30. Are you certain that you can tell by simply looking at it whether or not a cylinder is made of celluloid?

(Counsel for Capps requests to know if the test called for is limited to the sense of sight alone, or whether it intends that the witness would have an opportunity to handle the article.)

(Counsel for Petit replies that he means simply by taking the record in his hand and looking at it.)

A. Yes, sir.

FRANK W. BIRD.

J. W. HOUSEL, JR.

And thereupon J. W. Housel, Jr., a witness produced on behalf of applicant, Capps, being first duly sworn, testifies in answer to questions by Mr. Massie, as follows:

Question 1. Please state your name, age, residence and occupation.

Answer. J. W. Housel, Jr.; of lawful age; Whippany, N. J.; travelling salesman.

Q. 2. You have heard the testimony just given by Mr. Capps and Mr. Bird. What do you know about the making of the two records marked Capps Exhibit Celluloid Records of March 4, 1901?

A. I saw the two cylinders dipped in alcohol, placed on the phonograph, and recorded by Mr. Emerson; and immediately taken from that machine and placed upon another machine and reproduced.

Q. 3. Did you hear the reproduction?

A. I did. Mr. Emerson talked through the machine and in listening to the reproduction we could hear distinctly everything as he had formerly spoken through the trumpet, even the rise and fall in voice.

Q. 4. How long a time elapsed between the dipping of the celluloid in alcohol and the act of recording thereon?

A. Exactly five minutes, as being timed by my watch.

Q. 5. I hand you the two articles already offered as exhibits—Capps' Exhibit Celluloid Records of March 4, 1901—and ask whether or not these are the identical two which you have just testified concerning as being made by Mr. Capps in your presence?

A. They are.

Q. 6. How do you identify them?

A. By my initials on one and my full name on the other, written yesterday at the time.

Cross-examination:

×-Q. 7. Where were these records made?

A. On the corner of New and Plane streets, Newark, N. J.

×-Q. 8. Who was present?

A. Mr. Capps, Mr. Bird, Mr. Emerson and myself.

×-Q. 9. Were you specially invited there to witness it?

A. I was.

×-Q. 10. Who dipped the two cylinders into the alcohol?

A. Mr. Capps.

×-Q. 11. How do you know it was alcohol?

A. Only from the fact that I was told it was alcohol and from the peculiar odor it gave out.

×-Q. 12. Then of course you can't say from your own knowledge whether or not there were any other ingredients mixed with the alcohol?

A. I could not.

×-Q. 13. Do you remember what was recorded?

A. Not accurately, but can give a general idea. Mr. Emerson spoke into the trumpet saying this record was made in the presence of Mr. Capps, Mr. Housel, Mr. Bird and Mr. Emerson. Before saying that he described the fact that this record had been placed in alcohol and after drying for five minutes the record was taken. He then recited a poem I believe.

×-Q. 14. Was this the first time you ever saw a record produced?

A. No.

×-Q. 15. I mean where the surface of the celluloid had been treated in some manner previous to the record being taken?

A. I never saw a record prepared before in my life, outside of the talking through the trumpet.

Re-direct:

Re-D. Q. 16. So far as you know, did Mr. Capps or anyone else add any ingredients to the alcohol bath?

A. As far as I know, they did not.

Re-D. Q. 17. Did the alcohol bath, so far as you observed, have any discoloration, or any clouded or ropy appearance?

A. It did not.

J. WILSON HOUSEL, JR.

FRANK L. CAPPS (Recalled).

And thereupon the applicant, Frank L. Capps, being recalled, in his own behalf, testifies as follows:

Question 1. Where did you purchase the bottle of alcohol that we have heard testified about?

A. It is my belief that the alcohol was purchased from C. B. Smith & Co., of Newark. We have a stock of chemicals for work of this kind and we purchase them regularly at C. B. Smith & Co. and this alcohol which I used was taken right from our stock.

Q. 2. It was purchased, was it not, as being the ordinary commercial article?

A. Yes, it was.

Q. 3. Had you added any ingredients to this alcohol before you treated the cylinders to produce the exhibit records put in evidence to-day?

A. I had not.

Q. 4. Do you know whether or not any one else added any ingredient to this alcohol?

A. Not to my knowledge.

Q. 5. What was the appearance of the alcohol bath before you dipped the celluloid into it?

A. It was perfectly clear.

Q. 6. Where are the chemicals kept at your place?

A. They are kept in a room on the second floor.

Q. 7. Who has charge of this room?

A. I have charge of the room.

Cross-examination.

×-Q. 8. Is it not possible to add other ingredients to alcohol without changing its appearance or color?

A. It is.

×-Q. 9. Can not a fatty acid be added to the alcohol without changing either the color or smell?

(Counsel for Capps submits that the use of fatty acids with alcohol is a matter of chemical technics, more within the province of the applicant, Mr. Petit, than of this witness and in so far as the question calls for a knowledge of the technical effect based upon theory or speculation only and not upon the actual knowledge and experience of the witness, his testimony would be incompetent.)

(Counsel for Petit replies that Mr. Capps in his preliminary statement says that he has been for a number of years engaged in experimenting upon this very subject, from which as well as from this application involved in this interference it would appear that the witness would be considered competent to answer this question. And he has also stated in his last answer that it is possible to add other ingredients to alcohol without changing the appearance of the color.)

(While counsel for Mr. Capps does not doubt his ability to answer any question touching his celluloid process, he submits that when the witness is called to testify to facts it is not competent for the other side to

atempt to cross-examine him as an expert. If counsel for Petit desires to ask the witness categorically as to the effects upon alcohol of the addition thereto of a long list of ingredients, for instance water, or amyl-acetate or fatty acids, etc., concerning which ingredients the witness has not testified upon this occasion, Petit's counsel thereby makes the witness his own.)

(Counsel for Petit replies that he does not propose or desires to cross-examine the witness as suggested by counsel for Capps, but that as it has been intimated by the testimony produced in regard to the alcohol that the addition of some other ingredient might alter its appearance or color it was simply counsel for Petit's intention to develop whether or not some other ingredient might not be added without any change in the color or appearance of the alcohol, which the witness has already stated in answer to ×-Q. 8 might be a fact.)

A. I believe it can.

Re-direct:

Re-D. Q. 10. Did you ever add a fatty acid to alcohol?

A. I never did.

FRANK L. CAPPS.

Adjourned subject to further notice.

IN THE UNITED STATES PATENT OFFICE.

Capps
vs. } Interference No. 20,769.
Petit.

New York, *March 8, 1901.*

Met pursuant to notice at eleven A. M. at the office of Philip Mauro, Esq., 137 Broadway, New York City.

Present as before.

EDWARD D. EASTON.

And thereupon Edward D. Easton, a witness produced on behalf of applicant, Capps, being first duly sworn, testifies as follows, in answer to interrogatories by Mr. Massie:

Question 1. Please state your name, age, residence and occupation?

Answer. Edward D. Easton; age, forty-four; residence, Arcola, New Jersey; occupation, President of the American Graphophone Co. and Columbia Phonograph Companies.

Q. 2. Mr. E. A. Hawthorne and Mr. F. M. Prescott have testified on behalf of the applicant, Petit, that in November last they called upon you to show you a Petit celluloid record; and that you stated that your Company had been experimenting for a long time with celluloid records and had not been able to produce one on which the record would stay, that is on which the sound did not ultimately disappear; and that if they (meaning Messrs. Hawthorne and Prescott) had a celluloid record on which the sound would not disappear, then they had a good article. Please state your recollection concerning this visit, particularly as to the correctness of the statement attributed to you. Can you repeat in substance what you said to these gentlemen in the matter?

A. I recall a visit from Mr. Hawthorne and Mr. Prescott in which they showed me and let me hear a celluloid record and in which I asked them whether that record would disintegrate. I certainly did not tell them that our company had had any difficulty with the disintegration of celluloid records, for such is not the fact to my knowledge. I had heard of such trouble elsewhere than in our service; hence the inquiry. I think I told these gentlemen at that interview that they ought to ascertain whether their record was permanent, but more particularly that they ought to ascertain to whom it belonged in the matter of patentability, that we had done work along these lines for a long time and supposed we controlled the art.

EDWARD D. EASTON.

No cross-examination.

Close of Capps' rebuttal testimony.

Notary's Certificate.

IN THE UNITED STATES PATENT OFFICE.

Capps
vs. } Interference No. 20,769.
Petit.

State of New York, } ss:
County of New York.

I, Elisha K. Camp, a Notary Public within and for the County of New York in the State of New York, do hereby certify that the foregoing depositions of Charles B. Gregory, James K. Reynard, William Herbert Smith, Leonard G. Spencer, Victor H. Emerson, Frank L. Capps, Frank W. Bird, J. W. Housel, Jr., and Edward D. Easton, were taken in rebuttal on behalf of said Frank L. Capps in pursuance of the notice hereto annexed, before me at No. 137 Broadway, Borough of Manhattan, City and State of New York, on the 4th, 5th and 8th days of March, 1901; that the said witnesses were by me duly sworn; that the testimony of said witnesses was written out in my presence by Miss Josephine Taylor; that the opposing party was represented during the taking of such testimony by George T. Pinckney, Esq., representing Messrs. L. W. Serrell & Son; that the said testimony was taken at the place and dates aforesaid, commencing at 10.30 A. M. of March 4 and after recess for lunch adjourned at 5 P. M. that day, resuming at 2 o'clock P. M. on March 5, and adjourning at 4 P. M. of that day, and resuming at 11 A. M. of March 8, and concluding at 11.15 A. M. of the same day; and that I am not connected by blood or marriage with either of said parties, nor interested directly or indirectly in the matter in controversy.

In testimony whereof I have hereunto set my hand and affixed my seal of office in the county and State aforesaid, this 8th day of March, 1901.

ELISHA K. CAMP,
[SEAL.] *Notary Public, N. Y. Co.*

[Ten cent United States Internal Revenue Stamp, cancelled.]

EXHIBITS.

In the U. S. Patent Office.
Capps *vs.* Petit.
Interference No. 20,769.

Capp's Exhibit, Emerson's Bill.

ELISHA K. CAMP,
January 24, 1901. *Notary Public.*

NEW YORK, *April 6, 1898.*

Mr. V. H. EMERSON,
C/o Columbia Phonograph Co., 1155 B'way.
Bought of THE CELLULOID COMPANY,
Terms net. 30, 32, 34, 36 Washington Place.

Covering 5 cylinders as per instruction, 3.00		3.00
Mch 14, Paid	10.00	
Deduct above amount	3	

Blue-Print of Tracing of "Capps' Exhibit, Emerson Note Book."—E. K. Camp.

March 6—'95. In celluloid scheme have the cutting parts immersed in water to prevent sticking of thread to surface of cylinder.

Get some thinner or solvent that will act slower—try mixing it with oil.

Soften blank with boiling water—If temperature is not high enough to soften it use an oil that has a very high burning point.

Tracing of "Capps Exhibit, Emerson Note Book"—E. K. Camp.

March 6—'95. In celluloid scheme have the cutting parts immersed in water to prevent sticking of thread to surface of cylinder.

Get some thinner or solvent that will act slower—try mixing it with oil.

Soften blank with boiling water—If temperature is not high enough to soften it use an oil that has a very high burning point.

Blue-Print of Tracing of "Capps Exhibit, Emerson Memorandum Book."—E. K. Camp.

Jany 16/96 Sheet celluloid cyldr in record with colodion bath Transfer OK, but shrunk,

---

Tracing of "Capps Exhibit, Emerson Memorandum Book."—E. K. Camp.

Jany 16/96 Sheet celluloid cyldr in record with colodion bath Transfer OK but shrunk

---

Blue-Print of Tracings of "Capps Exhibit, Emerson Diary."—E. K. Camp.

Thurs., Feb. 18, 1897	Tues. Mar. 2, 1897
Get celluloid tubing for Capps	....
Friday 19	Wednesday 3
Get sheet celluloid collodion	15¢ colodion 10¢ ether for celluloid solvent

Tracings of "Capps Exhibit, Emerson Diary."—E. K. Camp.

Thurs. Feb. 18, 1897	Tues. Mar. 2, 1897
Get celluloid tubing for Capps	....
Friday 19	Wednesday 3
Get sheet celluloid collodion.	15¢ collodion 10¢ ether for celluloid solvent

---

In the U. S. Patent Office.
Capps *vs.* Petit.
Interference No. 20,769.

Capps' Exhibit, Prescott Letter, Dec. 26th, 1900.

ELISHA K. CAMP,
January 25, 1901. *Notary Public.*

National Gram-o-phone Corporation.
Universal Talking Machine Co.
Emerson Time Stamp Co.

New York N. Y., *Dec. 26th, 1900.*

The Emerson Time Stamp Co.,
100 New St., Newark, N. J.

Dear Sirs:

Yours of Dec. 22nd received and we have received back the stamps by express. We congratulate you on their simplicity. We shall be very glad to see Mr. Emerson at an early date relative to the contract. We have practically sold out the 100 stamps we purchased from Force and shall be ready to start in with you pretty soon.

Yours truly,

F. M. Prescott.

In the U. S. Patent Office.
Capps *vs.* Petit.
Interference No. 20,769.

Capps' Exhibit, Prescott Letter, Dec. 8th, 1900.

ELISHA K. CAMP,
January 25, 1901. *Notary Public.*

National Gram-o-phone Corporation.
Universal Talking Machine Co.
Emerson Time Stamp Co.

New York, N. Y., *Dec. 8th, 1900.*

The Emerson Time Stamp Co.,
100 New St., Newark, N. J.

Dear Sirs:

Yours of Dec. 7th received and note that exclusive contract of W. A. Force is canceled by mutual consent. This is very good news for us. We have on hand about 100 of the time stamps of Mr. Force's patern and it will take us some little time to get rid of these. The sale has been checked very much by having to increase the price. Shall be glad to see a sample of the new one and make arrangements with you about the exclusive export agency. If we do not have exclusive agency it is foolish for us to put any money in to push it. When you are ready with a sample and are willing to talk with us about exclusive agency for export shall be glad to see you.

Yours truly,
F. M. Prescott.

In the U. S. Patent Office,
Capps *vs.* Petit.
Interference No. 20,769.

Capps' Exhibit, Force Letter, Dec. 12th, 1900.

ELISHA K. CAMP,
January 25, 1901. *Notary Public.*

Wm. A. Force & Company,
New York, *Dec. 12th, 1900.*

Emerson Time Stamp Co.
Newark, N. J.

Gentlemen:

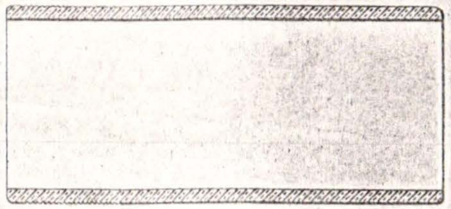
The writer must apologize for not taking up the matter of contract after the conversation with Mr. Emerson, but the lack of time and many matters have intervened. In accordance with the verbal understanding we wish the cancellation of the contract between us, which will allow you to sell the stamps at such prices as you desire, and will also permit us to buy from you such stamps as we may require from time to time to fill orders we may receive. We prefer this release for the reason that we have had considerable trouble with the stamp and we feel that our efforts will not produce for us sufficient return for the energy and money that we have invested in it. Will you kindly acknowledge receipt of this letter and state your acceptance of the cancellation.

Yours respectfully,
Wm. A. Force & Company.
Dic. H. D. D.

20000
25300

31/1

35/1



Inventor

Ademor N. Petit

Witnesses

Chas H. Smith
J. Staib

for L. W. Sewell & Son

Attys

11358

DIV. 23

16/3

Fig. 1.

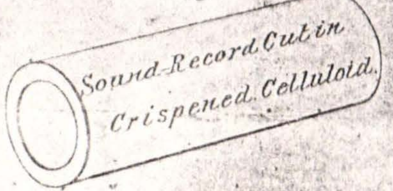
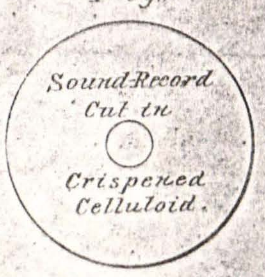

Sound-Record Cut in
Crispened Celluloid.

Fig. 2.


Sound-Record
Cut in
Crispened
Celluloid.

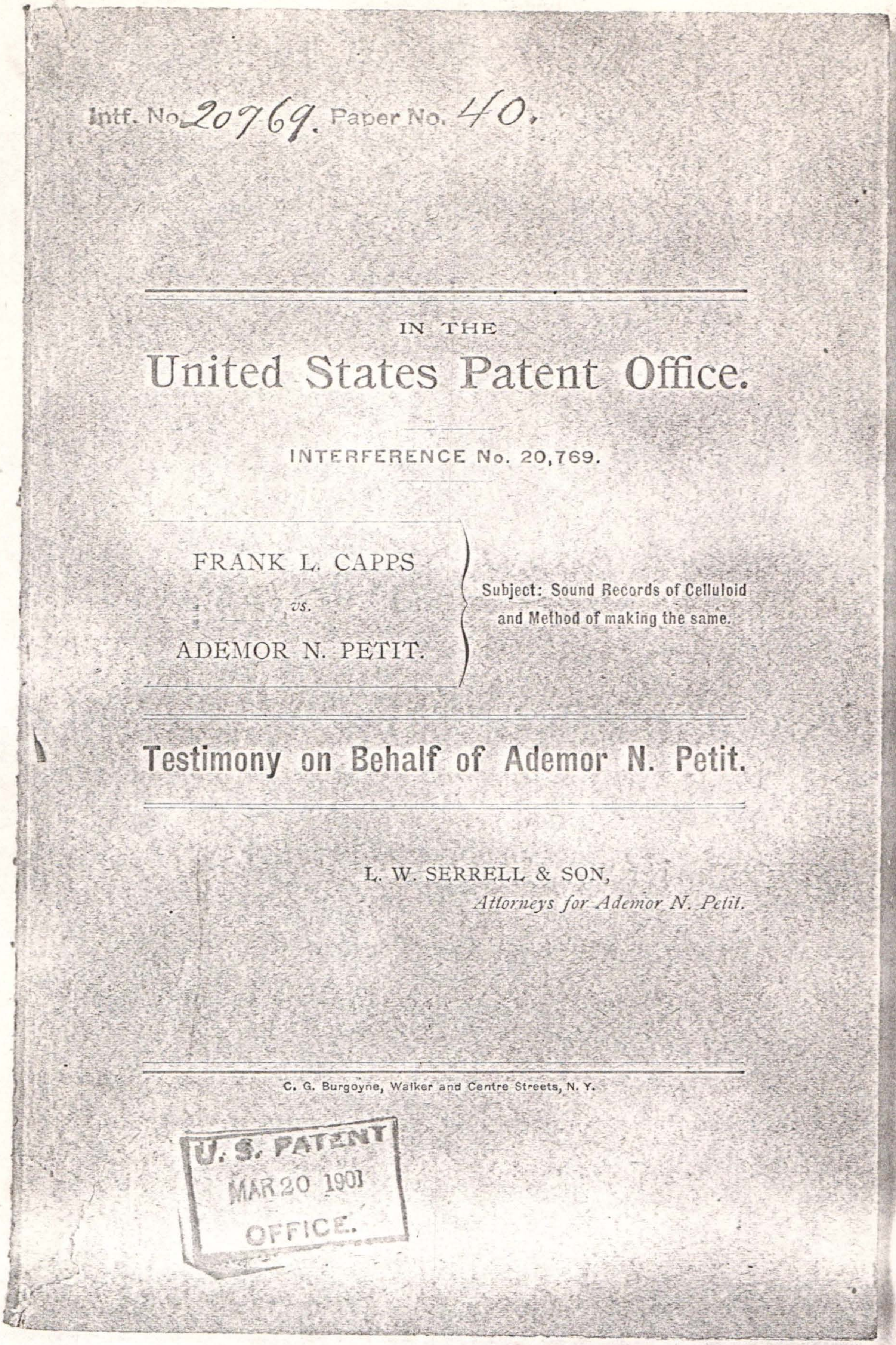
F. L. Capps Application Filed Apr. 3, 1900.
Celluloid Sound Record and Method of Producing the Same.

Witnesses.
W. R. Edelen

Inventor
Frank L. Capps
by Philip Mauro
his Atty.

June 18, 1900

35/2



Intf. No. 20769. Paper No. 40.

IN THE

United States Patent Office.

INTERFERENCE No. 20,769.

FRANK L. CAPPS
vs.
ADEMOR N. PETIT.

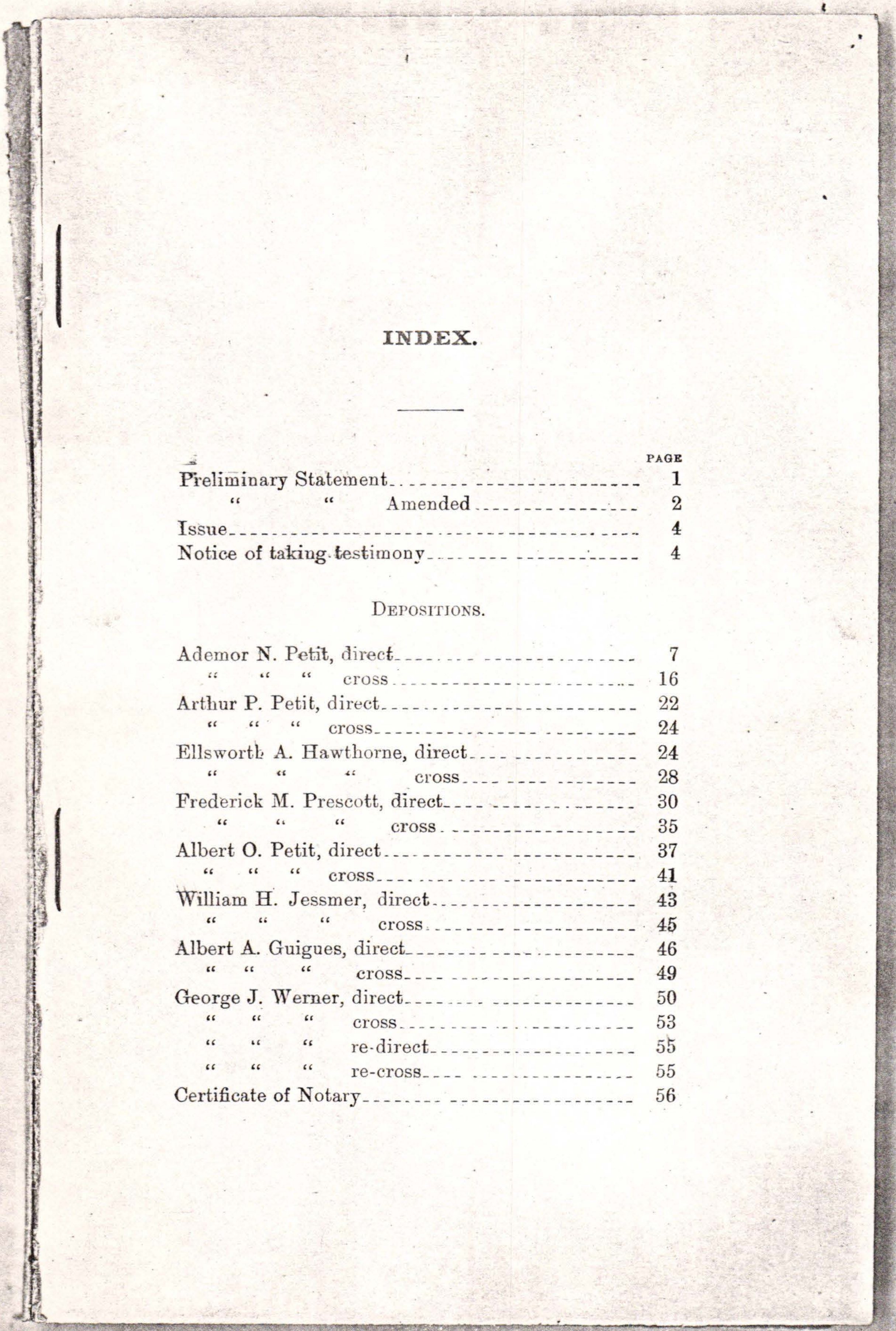
Subject: Sound Records of Celluloid and Method of making the same.

Testimony on Behalf of Ademor N. Petit.

L. W. SERRELL & SON,
Attorneys for Ademor N. Petit.

C. G. Burgoyne, Walker and Centre Streets, N. Y.

U. S. PATENT
MAR 20 1901
OFFICE.



INDEX.

PAGE
Preliminary Statement 1
" " Amended 2
Issue 4
Notice of taking testimony 4

DEPOSITIONS.

Ademor N. Petit, direct 7
" " " cross 16
Arthur P. Petit, direct 22
" " " cross 24
Ellsworth A. Hawthorne, direct 24
" " " cross 28
Frederick M. Prescott, direct 30
" " " cross 35
Albert O. Petit, direct 37
" " " cross 41
William H. Jessmer, direct 43
" " " cross 45
Albert A. Guigues, direct 46
" " " cross 49
George J. Werner, direct 50
" " " cross 53
" " " re-direct 55
" " " re-cross 55
Certificate of Notary 56

EXHIBITS.

PAGE
Petit Exhibit Augustin Letter, introduced on.... 8
“ “ “ “ printed on....... 57
“ “ Original Celluloid Record of June 13, 1897, introduced on.... 10
“ “ Original Experiment of April 24, 1896, introduced on.... 11
“ “ November, 1897, introduced on.... 12
“ “ Original Celluloid Record of March, 2, 1899, introduced on........... 13
“ “ Perfect Record, introduced on..... 14
“ “ Hawthorne's Experiment with Capps Process No. 1, introduced on.... 26
“ “ Hawthorne's Experiment with Capps Process No. 2, introduced on.... 26
“ “ Hawthorne's Experiment with Capps Process No. 3, introduced on.... 26
“ “ Prescott's Experiment with Capps Process No. 1, introduced on.... 33
“ “ Prescott's Experiment with Capps Process No. 2, introduced on.... 33
“ “ Prescott's Experiment with Capps Process No. 3, introduced on.... 33

IN THE

UNITED STATES PATENT OFFICE.

INTERFERENCE No. 20,769.

ADEMOR N. PETIT vs. FRANK L. CAPPS.	*Subject* : Sound Record of Celluloid, and Method of Treating the Surface of Celluloid, etc., and Forming Phonograph Records thereon.

Preliminary Statement of Ademor N. Petit.

STATE OF NEW YORK, }
County of New York, } ss. :

ADEMOR N. PETIT, of Newark, in the County of Essex and State of New Jersey, being duly sworn doth depose and say that he is a party to the interference declared by the Commissioner of Patents October 13th, 1900, between his applications for letters patent filed July 30th, 1900, Serial Nos. 25,300 and 25,301, and an application filed by Frank L. Capps, of Newark, New Jersey, for letters patent for Improvement in Celluloid Sound Records and the Method of Producing the same ; that he conceived the invention set forth in the declaration of interference on or about the 4th day of January, 1896 ; that he made sketches illustrative of the invention on the same day and explained the invention to others shortly thereafter ; that in the month of November, 1897, he made a model illustrative of the invention, which model was shown and explained to others in the latter part of the said month of November, 1897, and which model was full size and tried upon a machine at that time; that a more perfect model was made in the early part of 1899, and was successfully operated March 2d, 1899; that he has not manufactured the records for sale, but has continued the use of the models named and has made other records to demonstrate the invention.

Ademor N. Petit.

Sworn to and subscribed before me this 30th day of October, 1900.

Geo. T. Pinckney,
[Notorial Seal.] Notary Public (86),
Kings Co.,
Cert. in N. Y. Co.

IN THE UNITED STATES PATENT OFFICE.

Interference No. 20,769

Frank L. Capps
vs.
Ademor N. Petit.

Subject: Sound record of celluloid and method of treating the surface of celluloid, &c., and forming phonograph records thereon.

Amended Preliminary Statement of Ademor N. Petit.

State of New York, County of New York. } ss.:

Ademor N. Petit, of Newark, in the County of Essex and State of New Jersey, being duly sworn, doth depose and say that he is a party to the interference

declared by the Commissioner of Patents October 13, 1900, between his, said Petit's, application for letters patent filed July 30th, 1900, Serial Nos. 25,300 and 25,301, and an application filed by Frank L. Capps, of Newark, New Jersey, for Letters Patent for Improvement in Celluloid Sound Records, and the Method of Producing the Same; that he conceived the invention set forth in the declaration of interference on or about the 4th day of January, 1896; that he made sketches illustrative of the invention on the same day; that he explained the invention to others sometime between January and the end of April, 1896; that he is unable at this date to give the exact month, but that it was before May, 1896; that in the month of June, 1897, he made a model illustrative of the invention, which model was shown and explained to others in the said month of June, 1897; that he embodied his invention in a full-sized record, which was completed in the month of November, 1897, and tried upon a machine, and shown and explained to others in the same month; that he made another full-sized record in February, 1899, and that on or about the 2d day of March, 1899, the said record was successfully operated in Newark, New Jersey, and that he has since continued to use the same, and that he has manufactured others to demonstrate the invention, but has not put the same on the market for sale.

Ademor N. Petit.

Sworn to and subscribed before me this 20th day of November, 1900.

Geo. T. Pickney (86),
Notary Public,
[Notarial Seal.] Kings County.
Certificate filed in New York Co.

Subject-Matter Involved in the Interference.

Count 1.

"As a new article of manufacture, a celluloid tablet having engraved thereon a record of sound."

Count 2.

"The method of producing sound records in celluloid, which consists in first softening the celluloid, then permitting it to stand until it assumes a crisp consistency, and while in that condition cutting or engraving therein a record of sound.

IN THE UNITED STATES PATENT OFFICE.

INTERFERENCE No. 20,769.

FRANK L. CAPPS

vs.

ADEMOR N. PETIT.

Sbuject:
Sound Records of Celluloid and the Method of Making the Same.

Notice of Taking Testimony.

PHILIIP MAURO, ESQ.,
137 Broadway, New York City, Attorney of Record for said Capps:

SIR—Please take notice that on Wednesday, February 13th, 1901, beginning at 10:30 o'clock in the forenoon of that day and before a competent officer, at our office, No. 302 Broadway, New York City, N. Y., we

shall proceed to take testimony on behalf of the applicant Petit in the above-entitled matter of interference. The witnesses to be examined are: Ademor N. Petit, of No. 7 Sidney Place, Newark, N. J.; F. M. Prescott, of No. 44 Broad street, New York City; E. A. Hawthorne, of No. 297 Broadway, New York City; A. O. and A. P. Petit, both of New and Halsey streets, Newark, N. J.; W. H. Jesmer, of Ferry and Foundry streets, Newark, N. J.; George Warner, of Orange, N. J.; A. A. Guigues, of West Park street, Newark, N. J., and perhaps others.

The examination will be continued from day to day until completed. You are invited to attend and cross-examine.

L. W. SERRELL & SON,
Attorneys for A. N. Petit.

Due service of the foregoing notice admitted this ninth day of February, 1901.

PHILIP MAURO,
Attorney for F. L. Capps.

IN THE UNITED STATES PATENT OFFICE.

INTERFERENCE No. 20,769.

In the matter of the interference now pending before the Honorable Commissioner of Patents between the application for letters patent filed by Frank L. Capps, April 3d, 1900, and the applications filed by Ademor N. Petit, July 30th, 1900, as a continuation of his application filed October 27th, 1899, Serial No. 734,933, for letters patent for an Improvement in Sound Records of Celluloid and the Method of Making the Same.

Depositions of witnesses examined on behalf of Ademor N. Petit pursuant to the annexed notice at the office of L. W. Serrell & Son, No. 302 Broadway, New York City, on Wednesday, February 13th, 1901.

Present—MR. GEO. T. PINCKNEY, representing L. W. Serrell & Son, on behalf of the applicant Petit, and MR. C. A. L. MASSIE, representing Mr. Philip Mauro, on behalf of the applicant Capps.

Counsel for Petit states that testimony on behalf of Mr. Petit is proceeded with without waiting the final determination of the motion made on behalf of Capps to file an amended preliminary statement for the reason that one of Mr. Petit's witnesses is about to sail for Europe, and that some of his other witnesses can attend at this time with greater convenience than in the future, and that such proceeding is no waiver of any objection made to the testimony introduced on behalf of Mr. Capps, nor is it in any manner to be construed as sanctioning the evidence of Capps which antedates his preliminary statement.

And thereupon ADEMOR N. PETIT, a witness in his own behalf, being first duly sworn, in answer to interrogatories propounded by MR. GEORGE T. PINCKNEY, testifies as follows:

1 Q. Please state your name, age, residence and occupation?

A. Ademor N. Petit; aged, 34; reside at Newark, New Jersey; occupation, experimentalist.

2 Q. Are you the Ademor N. Petit whose applications for Patent Serial No. 25,300 and Serial No. 25,301, filed July 30th, 1900, as a continuation of the application filed October 27th, 1899, are involved in this interference?

A. Yes, sir.

3 Q. Are you familiar with the two counts of the issue in this interference as set forth in the official declaration, dated October 13th, 1900?

A. Yes, sir.

4 Q. Will you please state when you first conceived the invention in this interference?

A. January 4th, 1896.

5 Q. How do you fix the date of your conception as January 4th, 1896?

A. I made a memorandum note of the invention on this date.

6 Q. Have you such memoranda, and, if so, will you produce the same?

A. I have, and here I produce the same.

7 Q. Will you please read such memoranda on the record.

A. "The idea of softening celluloid to enable cutting into for making phonograph records with a solvent and a fatty matter. January 4th, 1896."

8 Q. In whose handwriting is this memoranda?

A. In my handwriting.

It is consented that this memorandum book need not be put in as an exhibit, but is to be produced at the hearing if called for.

9 Q. Is it your practice to keep memoranda of your ideas as they occur ?

A. I make memoranda notes of ideas which I believe most important.

10. Q. What did you first do in connection with the said inventions after your conception of the same ?

A. I made experiments to verify my ideas.

11 Q. When did you first disclose these inventions to other parties after your conception of them and to whom ?

A. On the second Sunday following New Year's Day of 1896 I disclosed to Albert O. Petit this invention, and on April 24th, 1896, before Albert O. Petit, I made a practical demonstration of the invention, and on the first Sunday of the month of July, 1896, I disclosed the invention to Lewis Augustin.

12 Q. Do you know where this Mr. Lewis Augustin now is ?

A. He is residing in Canada.

13 Q. Have you communicated with him relative to this matter in interference ?

A. I have written him two letters, in one of which letters I mentioned and inquired if he remembered that I had disclosed to him my celluloid record invention, and at about what time. I received an answer to this letter.

14 Q. Have you that letter now, and if so can you produce it ?

A. I have, and here I produce the same. The letter was written in French and I have the translation in English. I have compared the two and to my knowledge they are *fac similes.*

Letter offered in evidence and marked " Petit Exhibit Augustin Letter."

Counsel for Capps objects to the offer of this exhibit as incompetent and inadmissable.

15 Q. You have said in your preliminary statement, filed in this case, that you made sketches illustrative of the invention on the same day that you conceived it. Have you such sketches now, and, if so, will you produce them ?

A. When I disclosed the invention to Albert O. Petit, he questioned the cost of celluloid cylinders as compared with the usual wax cylinders ; then I made sketches of different forms of cylinders that could be constructed from thin tubes of celluloid. These sketches I have not been able to recover or find.

16 Q. Please state how your time was occupied during the year 1896 ?

A. I was under contract working out a kinetographic camera and apparatus for exhibiting the kinetic photographs with Mr. Joseph Livingston, of New York. This contract dated November 28th, 1895, and terminated September 10th, 1896, on which date Mr. Livingston withdrew ; then I continued to complete the unfinished work of these these devices which time required to complete led me into the latter part of May, 1897.

17 Q. What was your object in endeavoring to complete the kinetograph camera after the termination of your agreement with Mr. Livingston ?

A. My object was to turn these into money, which money I had calculated to invest in my celluloid record.

18 Q. Did you succeed in obtaining any capital by your experiments with the kinetograph ?

A. I had succeeded in spending what little capital I had accumulated during the continuance of my contract with Mr. Livingston, and I did not receive any money from these devices after I had personally completed these devices.

19 Q. What did you next proceed to do ?

A. I was then compelled to work for wages. I secured a position with Geo. White Machine Works, Jersey City. I worked there eight hours per day, and received good wages. This encouraged me to immediately invest some of my earnings into my celluloid phonograph record experiments.

20 Q. What was the result of these experiments, did you succeed in making a record ?

A. On June 13th, 1897, I made a model record on celluloid according to my method described in my application involved in this interference.

21 Q. Have you that record now you say you made on June 13, 1897, and, if so, will you produce the same?

A. I have this record and here I produce the same.

> Record offered in evidence and marked "Petit's Exhibit Original Celluloid Record of June 13th, 1897."

22 Q. In whose possession has this record been since it was made?

A. In my possession since it was made.

23 Q. Was any other person or persons present when you made this record ?

A. William H. Jesmer and Albert O. Petit.

24 Q. Is this record in the same condition as when it was made in 1897 ?

A. With the exception of natural changes that take place in all composite matters, the record is the same.

25 Q. Did you ever show this record to any other persons than those you have mentioned, Mr. Jesmer and Mr. A. O. Petit?

A. On the same day I showed it to Mr. George Werner.

26 Q. Did this record actually reproduce the sound that was recorded?

A. This record actually reproduced the sounds that I had attempted to be recorded thereon.

27 Q. Is this the same record that you referred to in your preliminary statement as a model?

A. Yes, sir.

28 Q. Why did you call it a model?

A. Because it was made upon a cylinder smaller in dimension—I mean in the length—than the usual phonograph or similar records, and also because the recording surface was not complete on account of the overlapped and cemented seam.

29 Q. Did you by the experiment referred to by you as made April 24th, 1896, while disclosing the invention to A. O. Petit, actually produce a record ?

A. On April 24th, 1896, when I demonstrated the invention to Albert O. Petit, I actually recorded some of the sounds that I had attempted to record thereon.

30 Q. Have you that record now ?

A. I have.

31 Q. Can you produce it?

A. I here produce it.

> Record offered in evidence and marked "Petit Exhibit Original Experiment of April 24th, 1896."

32 Q. In whose possession has this been since it was made?

A. In my possession.

33 Q. Why did you not mention this in your preliminary statement?

A. Because the record that I had attempted to be recorded thereon was not altogether reproduced, and also on account of the imperfection generally I did not attempt to produce it or even mention it in my preliminary statement, even as much as a model.

34 Q. What did you next do in connection with these inventions after June 18th, 1897?

A. I continued experimenting from time to time during my available time and particularly during the month of November and December, 1897, I made a series of experiments upon cylinders constructed in a more perfect form than what I had used prior to this date.

35 Q. Have you any of those cylinders now, and if so will you produce them?

A. I have only a small sample left from those experiments of November and December, 1897, and I now offer one as evidence.

> Cylinder offered in evidence and marked "Petit's Exhibit, November, 1897."

36 Q. Is there any circumstance that enables you to particularly remember these experiments?

A. In the week of Thanksgiving, 1897, Arthur P. Petit bought and delivered to me a tubular box of celluloid, from which box I formed cylinders to fit the mandrel of the phonograph, and the work connected with the formation of the cylinders was made on Thanksgiving Day, 1897, and in the factory of George White, Jersey City, and with the assistance of one of the employees there.

37 Q. What did you next do after Thanksgiving, 1897?

A. I had then made up my mind it was necessary for me to obtain some capital, from whatever source, to enable me to carry on my work in the celluloid phonograph record, and with better facilities. My ambitions to obtain such capital led me into developing smaller inventions, and on February 7th, 1898, I filed an application for a lead-pencil-sharpening machine, and on February 26th, 1898, I filed two more applications for patents—one for improvements in graphophones, one for improvements in speed governor; and I did not obtain enough capital as the result of these inventions to even pay up my obligations.

38 Q. Were any of the celluloid cylinders made by you according to your two applications involved in this interference ever publicly exhibited?

A. One or two of these record cylinders made during my experiments of November and December, 1897, were publicly exhibited in the store and show window of the Edisonia Company, Newark, New Jersey, for a period of about nine months, beginning January 1st, 1898.

39 Q. Did you make any records according to the method described in your application in interference other than those you have already testified about?

A. During the month of February, 1899, and March, same year, I made another series of experiments, and then actually recorded and reproduced records made according to my application involved in this interference.

40 Q. Was any one else present when you made these records?

A. On March 2d, 1899, William H. Jesmer was present.

41 Q. Did you actually reproduce a sound in his presence, and did he listen to the reproduction?

A. I made the record and reproduced the same in his presence.

42 Q. Did any other person listen to the reproduced sound from these records?

A. A few minutes later than the making of this record which I have referred to I showed this same to Albert A. Guigues, and reproduced to him the record I had engraved thereon.

43 Q. Have you now in your possession the record made at that time, and, if so, will you produce the same?

A. I have, and here produce it.

> Record offered in evidence, and marked "Petit's Exhibit original celluloid record of March 2nd, 1899."

44 Q. Did Mr. Guigues inspect the record at that time?

A. He did inspect the record.

45 Q. What did you next do after March, 1899?

A. I then concluded to try and obtain some assistance to properly develop the manufacture of this celluloid phonograph record. On March 13th, 1899, I mailed a letter dated March 12th, 1899, to N. C. Lefferts, president of the Celluloid Company of New York, in which letter I had set forth my past labor on celluloid phonograph records, and solicited some assistance, for which assistance I had offered to them a part interest in my invention.

46 Q. Was this proposition accepted by Mr. Lefferts?

A. On April 4th, 1899, I received an answer from the Celluloid Company of New York, signed by N. C. Lefferts, president, in which letter was stated they did not care to accept my proposition in the form in which it was made.

47 Q. Did you, or not, succeed in obtaining any financial assistance later on?

A. On the 24th day of April, 1899, I received some money from parties I had interested in my inventions.

48 Q. What did you then do?

A. Then I immediately set to work on a larger scale, and with better facilities than ever before to develop the manufacture of this phonograph record of celluloid and also to discover, if possible, the simplest method of operation prior to preparing and filing patent application for the invention.

49 Q. Were any of the records made by you according to the process described in your application in interference such as you consider complete and salable articles?

Counsel for Capps objects to question as leading.

A. I have made about one thousand records according to my process described involved in this interference that were complete and salable articles.

50 Q. Can you produce one of them?

A. I now produce one.

Record offered in evidence and marked "Petit's Exhibit Perfect record."

51 Q. Are and were you aware that the American Graphophone Company, the assignees of record of Mr. Capps, owns and controls patents which are claimed to cover engraved sound records as articles of manufacture as well as the method of engraving such record, and that said company has prosecuted others who put such articles on the market?

A. Yes, sir.

52 Q. Do you know whether or not sound records of celluloid, made by the method described in your application now in interference, have been sold anywhere?

A. I have not sold any of them myself, although I have sent into different foreign countries several lots as samples of my work, and for the purpose of selling my foreign-patent rights.

53 Q. Do you know whether or not such sound records proved satisfactory to the parties?

A. I know from the fact that I have received a sum of money as part payment toward the purchase of some of my foreign patents, and that this payment was made only after an examination of my process and of the records themselves.

54 Q. What has been your experience in connection with phonograph devices and the making of sound records, and do you or not regard yourself as an expert in the business?

A. Thirteen years ago this month I was first employed in manufacturing parts for the construction of the gramophone, and I have interested myself in these devices ever since. During 1893 and 1894 I was employed at the Edison Phonograph Works, as contractor to manufacture the entire instrument, and had under my control between 70 and 80 people. For the past three years, or nearly three years, my entire attention and available time has been devoted to improving these devices, and the permanency of records of celluloid, or similar firm compositions. Within these last three years I have filed in the United States Patent Office 13 applications for patents.

55 Q. Were you present during the taking of Mr. Capps' deposition in this case?

A. Yes, sir.

56 Q. Have you or not examined the celluloid record marked "Capps' Exhibit Original Celluloid Record," introduced by Mr. Capps in this case?

A. Yes, sir; I closely examined the same through a magnifying glass.

57 Q. Do you or not, as an expert, consider this record, "Capps' Exhibit Original Celluloid Record," a record from which an understandable reproduction can be obtained?

A. I do not consider that this record, "Capps' Exhibit," is a true reproduction of the sounds that were attempted to be made thereon.

CROSS-EXAMINATION BY MR. C. A. L. MASSIE:

58 x-Q. Referring to the exhibit marked "Petit's Exhibit Original Celluloid Record, of June 13th, 1897," please state what sounds you had attempted to be recorded thereon?

A. Speech.

59 x-Q. Can you state at the present time the substance of this record?

A. Yes, sir.

60 x-Q. Please do so?

A. "Mary had a little lamb, its fleece was white as snow, and everywhere that Mary went the fleece was sure to go."

61 x-Q. What do the larger scratches, these more conspicuous markings, which appear to be characterized by a slight ridge, or furrow, adjacent thereto, indicate?

A. I had attempted to make records on that cylinder after having treated it at different periods, and those imperfections are results of some of those trials.

62 x-Q. Referring to "Petit's Exhibit, Nov., 1897," please state where this cylinder came from?

A. It was delivered to me by Arthur P. Petit.

63 x-Q. In your answer to Q. 36, you state 'that he "bought"; can you state where he obtained it?

A. Arthur P. Petit told me he bought it at the salesroom of the Celluloid Company, New York.

64 x-Q. Is that the company referred to in your answers to questions 45 and following, and of which Mr. Lefferts is president?

A. It is the same company.

65 x-Q. What do you intend, in your answer to Q. 39, when you say that, during the months of February and March, 1899, you actually recorded and reproduced records, &c.? What did you intend by the word "actually"?

A. Simply to designate that I had actually made the record in the presence of some one else, as distinguishing other records that I had made during that period in the presence of no one.

66 x-Q. Can you state approximately how many original celluloid records, engraved according to your process involved herein, you have sent abroad?

A. Between 60 and 75.

67 x-Q. To what countries?

A. I delivered these to my agent here in New York, and he delivered these records himself.

68 x-Q. Then you do not know, as a matter of fact, and of your own knowledge, that the records were actually sent to any foreign countries?

A. Yes, sir; I do know from having read reports from parties in foreign countries concerning these records.

69 x-Q. Kindly name the foreign countries to which these records were sent?

A. England and France.

70 x-Q. How long since were any such celluloid records sent by you to France?

A. I prefer to let my agent answer this; I mean, Mr. F. M. Prescott, who has charge of my foreign patent matters.

71 x-Q. What has become of the rest of the 1,000 odd records referred to in your answer to Q. 49 ?

A. I have in my possession the majority of this number, and I mean by having made 1,000 records that several records were made upon the same cylinder.

72 x-Q. How many different cylinders, containing such records, would you say you had produced ?

A. At least 250.

73 x-Q. How many such cylinders, containing original engraved records, are still in your possession ?

A. I would have to count the balance prior to making any statement, in preference to guessing at it.

74 x-Q. How many such articles have you disposed of in any way other than the 75 sent abroad by Mr. Prescott, your agent ?

A. Do you mean selling the article or disposing of it by giving them away ?

> Counsel for Capps states that he intends by the question any act to remove the articles from the possession or control of the witness.

A. I have delivered to parties here in this country probably 50 such records.

75 x-Q. Then you probably have in your possession somewhere about 125 such articles ?

A. Not necessarily, since I have mentioned that several records have been made upon the same cylinder, and that I have made use of the same surfaces, of course, over and over.

76 x-Q. Do I understand you to say that you have disposed of no celluloid cylinders or tablets containing original engraved sound records except the approximate 75 sent abroad and the possibly 50 delivered to parties here in this country ?

A. That is right.

77 x-Q. With regard to this 50, what consideration, if any, have you received ?

A. No consideration.

78 x-Q. In your answer to 53 you refer to sums received by you in part payments for some of your foreign patents ; what foreign patents do you refer to ?

A. The European and Continental countries.

79 x-Q. How many such patents can you name as thus sold by you ?

A. England, France, Germany, Belgium, Spain, Austria, and a few more.

80 x-Q. Can you state approximately when your German Patent was granted ?

> Counsel for Petit objects to the question as immaterial.

A. I do not know when a German Patent is granted ; that is, whether it is granted before it has been published for a period, or after that period of publication.

81 x-Q. Can you state what is the present status of your German application ?

A. I have received notice within the last two or three months that my application covering the solvent materials for treating celluloid and the method of engraving records thereon were to go on publication at once.

82 x-Q. Can you state whether or not, among the inventions referred to by you in your answer to Q. 54, there is any other system or method of producing sound records of celluloid besides the engraving process ?

> Objected to as immaterial.

A. Yes.

83 x-Q. Was this application involved in interference proceedings ; and, if so, with whom ?

> Witness does not understand the question.

I repeat the question in this form : Is this method you refer to as being a different method for producing celluloid sound records one of the 13 applications for patents filed by you within the last three years?

Objected to as immaterial and irrelevant.

A. I did not refer to any other method, simply referred to other patent applications connected with producing records on celluloid and similar firm compositions and apparatuses connected with the manufacture of the same.

> Objected to as irresponsive; the question was directed to other methods, and the witness answered that he had included or intended by his answer to Q. 54 to include as one of his inventions another method of producing celluloid sound records, and in x-Q. 83 the witness was asked as to such method? The question is now repeated.

Among the 13 applications for U. S. Letters Patent filed by you is or is not one of them for another method of producing celluloid sound records, not by engraving?

> Objected to by counsel for Petit as irrelevant and immaterial, and also as asking the witness to divulge inventions which may not yet be patented, and wholly irrelevant to the question at issue.
>
> Counsel for Capps disclaims any intention of asking witness to divulge the nature of this invention, and it is for this reason that he had difficulty in making his previous questions plain to the witness. He does not now ask the witness the precise nature of this last-named invention.

A. Yes.

84 x-Q. Was or was not this application involved in interference proceedings; and, if so, with whom?

Objected to as immaterial and irrelevant.

A. I did have one application for a patent which was involved in an interference with Capps some time ago.

85 x-Q. Can you state briefly your reasons for your conclusions that the Capps' Exhibit Original Celluloid Record is not a true reproduction of the sounds that were intended to be made thereon?

A. I answered faithfully and truthfully, and according to my past experience in judging sound records from eye inspection.

86 x-Q. What peculiarity characterized the record in question by reason of which you have arrived at your conclusions?

A. The main feature of the imperfection of that record is that it does not show the full scope of elevations and depressions as other records show that they are made upon successful and commercial record surfaces, and also that the surface of the depressions and elevations which forms the record present such a mat surface that reproductions from such sound records are modified very much by the reproduction of this mat surface as a part of the record itself.

87 x-Q. Referring to your Exhibits "Original Sound Record" of June 13th, 1897; of April 24th, 1896; and of November, 1897,—do you intend that each of these three exhibits is established by eye inspection to be a record capable of understandable reproduction of the original sounds?

A. I myself could judge by eye inspection whether any one of those exhibits would reproduce a sound record, and one of those records reproduces some of the sound record that was intended to be made; another one of those records mentioned also reproduces some of the sounds that were intended to be recorded, but in less volume; the record of June 13th, which is

Raymond R. Wile Research Library

one of the lot mentioned, is a record that produces an understandable reproduction, although it is made upon a rough or mat surface, and such rough or mat surface also forms a part of the record, which is similar to Capps' exhibit.

88 x-Q. What I ask you is, can you by a mere inspection—eye inspection—and without the aid of a reproducing machine, state positively, in a deposition, that any one of these three exhibits now under discussion is capable of an understandable reproduction ?

A. Yes, sir.

89 x-Q. Would it cause you to modify your answer to Q. 57, touching the Capps' exhibit, if you should be informed and be convinced that the said Capps' exhibit not only gives an understandable reproduction, but that the hearer can recognize and identify the voice of the person who made the same ?

A. Yes, sir, after I had been convinced.

90 x-Q. Do you know Frank L. Capps, the other party to this interference ?

A. I am not acquainted with Frank L. Capps, any more than I have seen him twice.

End of cross-examination.

Adjourned for one hour.

Ademor N. Petit.

Mr. Arthur P. Petit, a witness produced on behalf of applicant Petit, being duly sworn, deposes and says in answer to interogatories propounded to him by Mr. Geo. T. Pinckney, as follows:

1 Q. Please state your name, age, residence and occupation?

A. Arthur P. Petit; age, 36; reside at Newark, New Jersey, a dealer in phonographs and supplies.

2 Q. Are you a relative of Ademor N. Petit, one of the parties to this interference ?

A. I am his brother.

3 Q. Are you acquainted with the subject matter involved in this interference ?

A. I have read the subject matter, and have learnt more from conversation with my brother.

4 Q. Do you know anything about your brother's early experiments along this line ?

A. As I used to visit him frequently I was naturally posted on what he was doing, and saw his experiments.

5 Q. Did you or not ever assist him in any way in connection with his experiments connected with his inventions involved in this interference ; if so, when, and what did you do ?

A. I did assist him on several occasions, in purchasing material for his experiments ; the most important was the celluloid tubular box, which I purchased and delivered to him.

6 Q. Is there any circumstances that enables you to fix the time when you bought this tubular celluloid box which you have testified to as having bought ?

A. It was in November of 1897, for I had given an estimate to the celluloid company on a lithographic job and had seen several of their samples at that time.

7 Q. Did you ever see any cylinders that were formed from that piece of celluloid ?

A. I have heard records made from that celluloid tubular box which I bought for him.

8 Q. Did you ever witness your brother make records on celluloid according to the method described in his application ?

A. I have, on several occasions.

CROSS-EXAMINATION BY MR. C. A. L. MASSIE:

9 x-Q. Was this lithographic work to be done for advertising your business?

A. No.

End of cross-examination.

ARTHUR P. PETIT.

Met pursuant to adjournment.

ELLSWORTH A. HAWTHORNE, a witness produced in behalf of Mr. Petit, being first duly sworn, deposes and says, in answer to interrogatories propounded by MR. GEO. T. PINCKNEY, as follows:

1 Q. Please state your name, age, residence and occupation?

A. Ellsworth A. Hawthorne; aged 34; reside at Montclair, New Jersey, merchant.

2 Q. Are you acquainted with Mr. Ademor N. Petit, one of the parties to this interference; and, if so, how long have you known him?

A. Yes, about one year, or a little more than one year.

3 Q. Are you familiar with the invention of Mr. Petit, as described in his two applications now involved in this interference?

A. Yes.

4 Q. Have you or not had any personal experience in making sound records, and do you regard yourself as an expert in the business?

A. Yes.

5 Q. Have you or not personally made any sound records of celluloid according to the method described in Mr. Petit's application involved in this interference?

A. Yes. I have made records treated by Mr. Petit, and the results have been eminently satisfactory.

6 Q. Were you present during the taking of Mr. Capps' deposition in this case?

A. Yes.

7 Q. Have you read the specification in Mr. Capps' application involved in this case; and, if so, do you understand the same?

A. Yes.

8 Q. Have you or not personally tried to produce a sound record of celluloid by the process described in Mr. Capps' specification?

A. Yes.

9 Q. What was the result of such experiment?

A. Total failure. I made a test on three cylinders of celluloid, which I submit with my tests in detail, the cylinders are numbered 1, 2 and 3, and attached to each box is the detail of the tests.

No. 1 cylinder was a test made with alcohol as solvent, allowing it to dry. The alcohol made the celluloid sticky. In attempting to make a record the recording stylus rebounded from the face of cylinder and made no cut. The attempt to make a record was a failure. I made two further tests, using alcohol, allowing a different period of time to elapse before attempting to make the record, but the results were the same as on the first test. My test on cylinder No. 2 was with amyl acetate. Tried to make a record, and the result showed a slight marking of surface of cylinder; allowed the solution to become almost dry; I shouted to the recorder; the material adhered to the cutting stylus and came up in lumps; on attempting to reproduce record could hear a faint sound, accompanied with a terrific hissing sound and thumping. Nothing distinguishable. Stylus soon clogs under this treatment.

I made another test on cylinder No. 2, using an additional quantity of amyl acetate, allowing it to become thoroughly absorbed in the celluloid. This time the recorder made no cut whatever on the surface of the cylinder. The cylinder looked as though it had been varnished and was somewhat sticky.

With cylinder No. 3 I treated half the cylinder with acetic ether; this produced a surface somewhat like gelatine, or, as though it had been coated with glue, and the surface was sticky and adhesive. Stylus soon clogged, and the result was no record whatever. My next test was on the same cylinder, using an additional amount of acetic ether, but with practically the same result. Not the slightest cut was made by the stylus. No record. My next test on the same cylinder was with a solution of one-half alcoh ol and one-half amyl acetate, allowing it to become sticky dry. The stylus soon became clogged, and no record.

> Counsel for Petit offers the cylinders in evidence, the same to be marked by the magistrate Petit's Exhibit Hawthorne's Experiment with Capps' Process, Nos. 1, 2 and 3, respectively.

10 Q. In your opinion as an expert, can sound records of celluloid be made by the method described in Mr. Capps' application in this interference, such as would be considered in the trade a commercial success?

A. No.

11 Q. Are you or not familiar with the sound records now on the market?

A. Yes.

12 Q. Have you ever seen on the market any sound records of celluloid made by or for the American Graphophone Company, which, in your opinion as an expert, were made according to the method described in Capps' application described in this interference?

A. No.

13 Q. Is there any circumstance that leads you to believe that the American Graphophone Company have never offered for sale any celluloid record made according to Capps' method?

A. Yes. On November 26th, 1900, I had an engagement with Mr. E. B. Easton, president of the American Graphophone Company, to show him a Petit celluloid record, and he stated at that time that if we had a celluloid record on which the record would stay we had a good one, as his company had been experimenting for a long time with celluloid records, and had not been able to produce one on which the record would stay.

> Counsel for Capps objects to the answer just given as being hearsay and inadmissable, and gives notice that he will at the proper time bring on a motion to strike the same from the record. He further states that as he has just entered the room and now notes objections to questions 8 and 9 and 10 and the answers thereto, and to the exhibits "Hawthorne's Experiments by Capps' Process, Nos. 1, 2 and 3," as incompetent, irrelevant and immaterial—the issue being one of priority of invention.
>
> Counsel for Petit replies that Mr. Capps, both in his preliminary statement and in his testimony, has stated that he had produced and made successful records on celluloid by the process described in his application involved in this interference, and that, therefore, it is competent on behalf of Mr. Petit to produce evidence bearing on the correctness of that statement.

14 Q. Was any one other than yourself and Mr. Easton present at this interview on November 26th, 1900?

A. Yes, Mr. F. M. Prescott.

15 Q. Any other party?

A. Not at the time Mr. Easton made this remark, but a few moments later Mr. Smith called in Mr. Easton's office and heard the celluloid records, which I was showing to Mr. Easton. After hearing them he remarked that they were the best celluloid records he had ever heard.

Objected to as hearsay.

Cross-examination by Mr. Massie:

Without waiving any objections heretofore taken to the answers of this witness, cross-examination proceeds *de benne esse.*

16 x-Q. Would you mind stating the object of your visit to Mr. Easton last November, referred to in your answer to Q. 13?

A. To show him and allow him to hear the Petit celluloid record.

17 x.Q. As a matter of curiosity only, or did you propose or desire to interest him in the same?

A. First, to obtain his opinion of the records; second, with an idea of interesting him or his company in manufacturing them, or to enter an agreement by which another company would manufacture them.

18 x-Q. Did you succeed in interesting him, financially or otherwise in this scheme?

A. No. He stated that he understood there was some interference in regard to the patents, and that this would probably have to be decided; and he also remarked that such matters were very expensive.

All of the last answer except the word "No" is objected to as irresponsive.

19 x-Q. Would you mind stating what interest, if any, you yourself have in the Petit schemes and applications in controversy?

A. Absolutely none.

20 x-Q. Have you advanced any financial assistance in developing or exploiting them?

A. In the United States, not at all?

21 x-Q. But you have in foreign countries?

Objected to as irrelevant and immaterial.

It is pointed out by Capps' counsel that at the beginning of taking testimony on behalf of Capps it was stated on the record and acquiesced in by counsel for Petit that this witness Mr. Hawthorne was then present by consent, having an interest in the Petit application.

Counsel for Petit replies that regarding the statement at the beginning of Mr. Capps' deposition and as mentioning Mr. Hawthorne present by consent as a party interested in Mr. Petit's inventions, he, counsel for Mr. Petit, did not at that time know of his own knowledge whether Mr. Hawthorne had any interest in Mr. Petit's invention or not.

Counsel for Capps rejoins that he has the highest regard for Mr. Hawthorne and is always glad to see him at his office, but that he will under no circumstances consent to the presence at the taking of depositions concerning patentable matters of any person not interested therein on one side or the other.

A. Yes; I am interested in the foreign applications and patents relating to celluloid records.

22 x-Q. Would you mind stating whether or not, had you succeeded in interesting Mr. Easton financially in this scheme, you yourself would benefit thereby?

A. Had Mr. Easton become interested it is possible that I would, but Mr. Petit knew nothing whatever about my intending to see Mr. Easton, and was not acquainted with this fact until some time later.

Cross-examination closed.

Ellsworth A. Hawthorne.

Mr. Frederick M. Prescott, a witness produced on behalf of Mr. Petit, being first duly sworn, deposes and says in answer to interrogatories propounded to him by Mr. Geo. T. Pinckney as follows :

1 Q. Please state your name, age, residence and occupation.

A. Frederick M. Prescott ; aged 32 ; reside at Montclair, N. J. ; occupation, merchant.

2 Q. Are you acquainted with Mr. Ademor N. Petit, one of the parties to this interference, and, if so, how long have you known him ?

A. I have known him a little over two years.

3 Q. Are you familiar with the inventions of Mr. Petit as described in his applications now involved in this interference ?

A. Yes.

4 Q. Have you or not had any personal experience in making a sound record, and do you regard yourself as an expert in the business ?

A. I have had a long experience and consider myself an expert.

5 Q. Have you or not personally made any sound records of celluloid according to the method described in Mr. Petit's application in this case ?

> Objected to as immaterial and irrelevant.

A. I have. The records so made were highly satisfactory.

6 Q. Were any of such records publicly sold? If so, where, when and to about what extent?

A. The parties who bought Mr. Petit's patents for Great Britain and Continental Europe purchased of me upwards of 100 since July, 1899.

7 Q. Do you know whether or not such sound records proved satisfactory to such purchasers ?

A. They were satisfactory or they would not have bought the patents.

8 Q. Were you present during the taking of Mr. Capps' deposition.

A. I was.

9 Q. Have you read the specification of Mr. Capps' application in this case, and, if so, do you understand the same ?

A. I have and understand it.

10 Q. Have you or not personally tried to produce a sound record of celluloid by the process described in Capps' specification ?

> Objected to as incompetent, irrelevant and immaterial. The issue before the Patent Office is priority of invention. Assuming that this witness will be asked the same questions as the witness Mr. Hawthorne, it is agreed that the same objections will be considered as entered.
>
> Counsel for Petit makes the same reply to this as to the same objection in Mr. Hawthorne's deposition.

A. I have.

11 Q. What was the result of such experiment ?

A. Total failure. I have here the results of my experiments with transcripts of notes which I made at the time, and which I would like to offer in evidence as exhibits. They are numbered 1, 2 and 3 in the celluloid. Cylinder No. 1 revolved in thimbleful of amyl acetate, action was rapid as a solvent, penetrating one-sixty-fourth inch in two minutes' time ; kept cylinder revolving in air, and in five minutes was dry on outside surface, glossy and shiny, and sticky like green varnish in spots where not dry. In ten minutes tried to engrave a record, and surface was so hard stylus would not cut into it, and in one-half of cylinder recorded on not a syllable as recorded or chip cut. The surface appears glazed. Attempted cutting into glazed surface underneath appears like consistency of rubber or gristle, and of such composition chip could never be cut with stylus. Surface feels to finger nails like a hard rubber ball solid and springy, but not hard as original celluloid before treatment, when picking up surface with a knife it sticks and springs back, no chip is cut.

Experiment No. 2. Same as number 1, except that I tried engraving in 3 minutes, result was covering stylus with a slush, like pumice stone and oil in a wet state and no record was made. Tried again three minutes later to engrave and style would not cut a chip. Surface had become too hard and rubbery.

No. 3. On cylinder No. 2, treated to two thimbles of alcohol revolving until dry, in two minutes had penetrated one-sixty-fourth of inch, and in three minutes was nearly dry and smooth on surface, and glossy like amyl acetate treatment. Texture instead of crisp seemed like spruce gum moistened. In five to seven minutes after applying solvent tried to record with stylus, not a chip, was cut or impression made. The diaphragm could not force the stylus to cut a chip in a glazed surface.

Experiment No. 4. On cylinder No. 3, used acetic ether on first half of cylinder, in three minutes tried to engrave when surface was slightly moist, sapphire would not cut, two minutes later surface was dry like gelatine or hardening glue, seven minutes after first application made a second one over it with more ether, and while moist tried to cut a record, although surface was wet, stylus would not then engrave.

Experiment No. 5. Put a mixture of alcohol and amyl acetate on the other half of cylinder No. 3, when nearly dry tried to make a record, and would not cut.

Experiment No. 6. On cylinder No. 3, two days later put one ounce of celluloid thinner and revolved for three minutes, when nearly dry tried to record and not a chip was cut. The surface did not get chalky or crisp, as stated in Capps' application, and it is my personal impression that Capps never produced any such results; after five minutes, surface was hard and glossy,

and, digging into it with a knife, texture was like hardening glue or gelatine, unfit for a cutting stylus on a diaphragm. Ten minutes after first application put a second bath of thinner over the first, using two ounces making surface very wet. The thinner acts like a thick varnish and makes the surface larger in diameter, and of a composition of glue, gelatine, or gum drops, and not chalky or crisp, made a thumb print in the surface after treating for 10 minutes. Thumb print could not be made if it were crisp or chalky. Tried to engrave after the thinner had been on 15 minutes and surface was dry. The style jumped and bounced and made skipping cuts, the pieces cut out stuck to the surface of the celluloid, because the texture of the cutting was gummy and not crisp or chalky.

> Counsel for Petit offers these three records in evidence, the same to be Marked by the magistrate Petit's Exhibit Prescott's experiment with Capps' Process, Nos. 1, 2 and 3, respectively.

12 Q. In your opinion as an expert can sound records of celluloid be made by the method described in the specification of Capps involved in this interference, such as would be accepted in the trade and commercially acceptable?

A. Absolutely impossible.

13 Q. Are you or not familiar with the sound records now on the market?

A. I am.

14 Q. Have you ever seen on the market any sound record of celluloid made by or for the American Graphophone Company, assignee of the said Capps, which, in your opinion as an expert, were made according to the method described in Capps' specification?

A. I have not.

15 Q. Is there any circumstance that leads you to

Raymond R. Wile Research Library

believe that the American Graphophone Company have never offered for sale any celluloid records made according to Capps' method ?

A. In an interview with the president of the American Graphophone Co. in November last, he stated to me that his company had been experimenting on celluloid records for some time, and had never been able to make a record on celluloid on which the sound did not ultimately disappear, and that if I had a record on celluloid on which the sound would not disappear, then I had something.

> Objected to as inadmissible, being hearsay, and counsel for Capps gives notice that he will at proper time move to strike the last answer from the record.
>
> Counsel for Petit replies as in Mr. Hawthorne's deposition.

16 Q. Was any other person than yourself and the president of the American Graphophone Company present at that interview ?

A. Mr. E. A. Hawthorne was present, and after the president of the American Graphophone Co. had made the remark, the treasurer of the American Graphophone Co. (Wm. Herbert Smith) came in and listened to one of Petit's records, which he and Mr. Easton said was a salable record, and one of the best on celluloid they had ever heard.

> Same objection to the last part of this answer and further objected to as immaterial.
>
> Objections are now entered to questions 10, 11 and 12 and the answers thereto, and to the three exhibits offered by this witness, as incompetent, irrelevant, immaterial and inadmissible.
>
> See reply by counsel for Petit as in Mr. Hawthorne's deposition.

CROSS-EXAMINATION BY MR. C. A. L. MASSIE :

> Without waiving any objections heretofore taken to the answers of this witness, but insisting upon the same, the cross-examination proceeds *de bene esse.*

17 x-Q. Who made the sound record referred to in your answer to question 6 and following ?

A. With the exception of a few, about 6, which I personally made in Europe, I do not know.

18 x-Q. Where did the other approximately 94 come from ?

A. They were delivered to me in part by Mr. A. N. Petit and in part by Mr. E. A. Hawthorne.

19 x-Q. Did you buy them outright yourself, or did you merely transmit them abroad and then remit the purchase money to Mr. Petit or Mr. Hawthorne ?

A. I simply acted as a forwarding agent.

20 x-Q. Would you mind stating approximately what sum was received for these 100 records ?

> Objected to as immaterial and irrelevant.

A. The purchase price of the patents for Great Britain and Continental Europe.

21 x-Q. Am I to understand from this that these 100 records were in the nature of samples, or chromos, or exhibits, that accompanied the foreign patent rights ; and that no separate consideration was received for the record ?

A. They were included in the purchase price of the patents so that the purchaser could use them as samples of the product manufactured under the patent by which to raise additional capital needed to carry on the company formed for controlling them in Europe.

22 x-Q. Do you regard this transaction you have just described, as a " public sale ? "

A. I certainly do.

23 x-Q. What do you consider the distinction between a public sale and a private sale?

Objected to as immaterial and irrelevant.

A. No difference.

24 x-Q. Of course the records were not sold before the patents were sold?

A. Records were delivered in England before the patents were sold. Payment was made at one time.

25 x-Q. Kindly state the nature of your interest, if you have any, in Mr. Petit's scheme for engraving original celluloid sound record?

A. I hold the option for the sale of all of his United States Patents granted and applied for.

26 x-Q. Do you know as a fact whether or not sound records are ever employed for any purpose other than to obtain an audible reproduction of the original sound?

A. Yes.

27 x-Q. How?

A. For making mechanical copies.

28 x-Q. Have you any idea as to what quality of sound record would be selected as a master for making such mechanical copies?

A. I have. A record with as perfect a cut of the sound wave reproduction as is possible to obtain.

29 x-Q. In your opinion would durability, or hardness of surface, be one of the qualities to induce a maker of such mechanical duplicates to select his master record?

A. Both qualities are desirable.

30 x-Q. I attempted several questions back to approximate the cost of producing these celluloid records, but without success. Kindly give your opinion, as a business man, whether or not you should think that a dealer in sound records would prefer to put on the market a celluloid record or would prefer to use the same as a master?

A. A dealer would prefer to put them on as a celluloid record.

31 x-Q. Can you state approximately the cost of producing an ordinary celluloid record?

A. Manufactured in quantity about six cents each.

32 x-Q. This includes the price of the celluloid, besides the operating expenses, depreciation on plant, and interest on original investments, is this correct?

A. That is correct, taking as a basis celluloid at forty-four cents per pound, the price quoted in England.

33 x-Q. How much does a celluloid cylinder such as one of the Petit Exhibits offered in evidence this morning cost?

A. The shell of celluloid at forty-four cents per pound, about four cents.

End of cross-examination.

F. M. Prescott.

Adjourned till 10:30 A. M., Thursday, February 14th, 1901.

New York, February 14th, 1901.

Met pursuant to adjourment.

Counsel present as before.

Albert O. Petit, a witness produced in behalf of applicant A. N. Petit, being duly sworn, deposes and says in answer to interrogatories propounded to him by Geo. T. Pinckney, Esq., as follows:

1 Q. Please state your name, age, residence and occupation?

A. Albert O. Petit; aged thirty-six years; residing at Newark, N. J.; my occupation is merchant of phonograph and other similar machines. I am a brother of A. N. Petit.

2 Q. Are you familiar with your brother's inventions?

A. I am.

3 Q. Do you know the subject matter of the present interference?

A. I do. The idea is to treat a celluloid cylinder with chemical processes in order to soften the surface to make a record thereon.

4 Q. When did you first learn of such inventions, and from whom?

A. From my brother A. N. Petit, the second Sunday following New Years 1896; he then showed me some small samples of celluloid, and which he told me he had treated with chemical processes, and showed me how he cut and indented the surface of same with a sharp instrument in my presence, and then I didn't hear any more on that subject until the 24th day of April, 1896; he then showed me a cylinder of wax covered over with a band of celluloid film, such as used on vitascopes at that time, and said he had treated it to chemicals the day before. We then had dinner, and then he prepared his phonograph and made a record thereon, in my presence, and reproduced same.

5 Q. What, if anything enables you to fix these dates, as January, 1896, and April 24th, 1896?

A. Because on New Years Day I usually had dinner with my brother A. N. Petit, but in this case I had dinner with my eldest brother, Leon Petit, Jr., at Chicopee Falls, Mass., and returned on the following Monday, and the Sunday following I called upon my brother A. N. Petit, and it was then that he showed me the samples of celluloid and I also questioned him of the possibilities of making celluloid cylinders which could be made economically enough to compare with the standard wax record. He then made a few sketches of a tube with the end adapted to fit the phonograph cylinder. For the date of April 24th, 1896, which happened to be on a Sunday, I remember that after breakfast I looked over the Sunday New York papers and found a full account of the first exhibition of the Edison Vitascope, which took place the night before—Saturday night; and, being interested in that line, and also knowing that my brother A. N. Petit was then working on photographic cameras and animated-picture machines, so I then called upon my brother on that day to show him the full accounts of same, and he told me that he had been to see the exhibition the night before and seemed very much disappointed; so he then told me, "If I am too late for my kinetoscope I'll not be too late for my celluloid cylinder." It was then that he showed me this one cylinder that he had treated the day before and made a record and reproduced it in my presence.

6 Q. I now show you a celluloid cylinder marked "Petit's Exhibit Original Record of April 24th, 1896," and ask you if you recognize this as having seen it before?

A. To the best of my knowledge this is the record that was made in my presence on April 24th, 1896.

7 Q. Do you know of any other experiments made by your brother on celluloid sound records according to the process described in his application for patent now in interference?

A. I knew of quite a few in the latter part of May and all through the month of June, 1897, particularly on June 13th, 1897.

8 Q. Were you present when such record was made?

A. I was, the one of June 13th I remember more than any others because it was a very fair record and of which you could well understand every word.

9 Q. I now show you a record marked "Petit's Exhibit original sound record of June 13th, 1897," and ask you whether or not you have ever seen the same before?

A. I have seen it made and have seen it many times since and heard it reproduced.

10 Q. What leads you to think this is the record you saw your brother make in June, 1897?

A. On account of its being short and this celluloid being of a peculiar kind which is an imitation of ivory and being cemented over in order to fasten it on to the wax cylinder, and especially the one cut, the one deep groove cut a little one side of the center, of which I remember questioning him about as to its cause.

11 Q. Was any other person or persons present when this record was made?

A. Yes, sir; Mr. Wm. H. Jessmer.

12 Q. Did this record of June 13th, 1897, actually reproduce a sound understandable?

A. Yes, sir; it did.

13 Q. Did you yourself listen to the reproduction of such record?

A. I did, and different times since.

14 Q. How do you fix the date of June 13th, 1897, when your brother made this record in the presence of yourself and Mr. Jessmer?

A. Because on June 11th I left for Rome, N. Y., to stop a company which I then had on the road exhibiting phonographs, vitascopes, &c., and the show was stopped on Saturday night, the 12th, and left for home at midnight; and the following day, which was the 13th, I ordered Mr. Geo. Werner, one of the company, to call on me at 42 Halsey street, Neward, N. J., in order to complete arrangements for another exhibition in Erie, Penn., for the 18th of that month.

15 Q. Do you know whether or not any record made according to Mr. A. N. Petit's process has ever been publicly exhibited, and, if so, when and where?

A. I do. There were different ones, especially during the months of May and June, 1897, at 42 Halsey street, Newark.

CROSS-EXAMINATION BY MR. MASSIE:

16 x-Q. Are you satisfied to state that April 24th, 1896, fell upon a Sunday?

A. I am.

17 x-Q. Do you trust your memory alone in reaching this determination?

A. No, I referred to the newspaper statements of the exhibition before referred to.

18 x-Q. What do you understand is meant by the term "celluloid"?

A. A composition of which the name celluloid is simply adapted as a name.

19 x-Q. Will you kindly state how you are enabled to determine with absolute confidence whether or not a given substance or article is in fact celluloid?

A. I am not familiar with the process of celluloid, any more than that the surface is too hard to make a good sound record thereon without some chemical process to soften the surface.

20 x-Q. If some person you are acquainted with should hand you an article that resembled your idea of celluloid in appearance, feeling, &c., and should tell you that the same was celluloid, you would be apt to consider that the said article was in fact celluloid, would you not?

A. Not necessarily so. As I stated before that celluloid to my idea is simply a name adapted for some particular manufacturing company—that is, one company might call such a thing celluloid, and which would prevent any other company from using that name, therefore while making the same or practically the same materials may be called something else.

21 x-Q. Will you kindly state some of the other names by which this same substance or material is designated?

A. I cannot just now recollect the name, but I can refer to two different samples made by two different companies, that I have received at our store, which was in a sense a celluloid; one of these was from the factory at Arlington, N. J., and another sample lot of 12 from Paris.

22 x-Q. I understand that one of these samples you have just referred to was called celluloid, while the other was designated by a different name; is this correct?

A. Yes.

23 x-Q. I would again ask you if you can give any information as to how you can determine whether or not a given article or material would be " in a sense " a celluloid?

A. I might ask if you refer to those samples to which I referred.

The question relates not only to the samples you have just referred, but also to the exhibits herein, concerning which you have already testified, and besides, in general, to your general knowledge touching the article or material under consideration. I will repeat the question: How do you determine whether or not a given article or material is " celluloid," or " in a sense celluloid? "

> Counsel for Petit objects to the question as irrelevant and immaterial and as improper cross-examination, witness having testified on the direct only as to facts done by his brother, and not having qualified as an expert; there is nothing to show that he is competent to answer such a question, and he is instructed that if he does not feel able to answer the question he is at liberty to so state.

A. I must confess that I am not very familiar with the celluloid business. The only way that I have of knowing celluloid is usually from its general appearance, and also from the peculiarity of the odor of camphor about it.

24 x-Q. Would you not, then, desire to correct your answers in which you refer to " samples of celluloid," " a band of celluloid," " celluloid," &c., as being treated by your brother and afterwards operated upon by him, by substituting for the quoted terms more general expressions, to indicate the exhibits already in the case and which you have referred to?

A. I refer to that exhibit of April 24th, 1896, " Petit's Exhibit Original Record of April 24th, 1896," having thereon a band of celluloid same as then used on the vitascopes; that is the only way that I have of explaining that it is celluloid.

25 x-Q. Do you also make the same answer concerning the material or composition of the other exhibits that you have testified to?

A. No, the only way that I know of the other samples being celluloid is what my brother A. N. Petit told me.

26 x-Q. Will you kindly state whether or not you yourself have ever carried out your brother's process?

A. Never.

End of cross-examination.

ALBERT O. PETIT.

MR. WM. H. JESSMER, a witness produced in behalf of applicant, A. N. Petit, being duly sworn, deposes and says, in answer to interrogatories propounded to him by Geo. T. Pinckney, Esq., as follows:

1 Q. Please state your name, age, residence and occupation?

A. Wm. H. Jessmer; 38 years old; reside at Newark, N. J.; occupation, barber, and also handle phonographs.

2 Q. Are you acquainted with Mr. Ademor N. Petit,

one of the parties to this interference, and, if so, how long have you known him ?

A. I am, and have known him about 16 years.

3 Q. Will you please state whether or not, of your own knowledge, Mr. A. N. Petit has ever invented any improvement in sound records of celluloid and the method of making the same, and, if so, when for the first time did you learn of it, and from whom ?

A. About May 15th, 1897, Mr. Petit first told me that he had discovered a method of treating phonograph records upon celluloid, and by his conversation then I understood that he treated the surface of celluloid to render it suitable for that purpose. On June 13th, 1897, I was at his house, and he was working on a phonograph, and there he made a record, and after making some changes on the phonograph he reproduced what he had spoken.

4 Q. Is there anything that enables you to fix the date of June 13th, 1897, as when this occurred ?

A. Yes ; Mr. A. O. Petit was to return from Rome and I was to meet him at Mr. A. N. Petit's house, and I met him there then.

5 Q. I now show you celluloid record, marked "Petit's Exhibit Original Record, June 13th, 1897," and ask you if you have ever seen the same before ?

A. I have, several times, and lately.

6 Q. When did you first see it, as you remember ?

A. June 13th, 1897.

7 Q. What makes you think this is the cylinder you saw at that time ?

A. By its size, and by the cemented ends of the band and by the color.

8 Q. Did this record actually reproduce the sounds understandably at that time ?

A. It did.

9 Q. Did you yourself listen to such reproduction at that time ?

A. I did.

10 Q. Did Mr. A. N. Petit ever make any other celluloid record in your presence ?

A. Yes ; on March 2d, 1899, he made another record upon celluloid ; he shaved the blank of the celluloid and made a record upon this blank, just the same as he would on wax.

11 Q. Do you know whether or not he did anything else to the record besides shaving it ?

A. I know he told me he had treated it the day before.

Answer objected to as being hearsay evidence.

12 Q. Have you ever personally seen Mr. A. N. Petit treat celluloid surfaces according to the process described in his application ?

A. I have—particularly between Thanksgiving and New Year's of 1897 ; the mixture that he told me he used was a fatty matter and a celluloid solvent ; that he treated the surface of the celluloid and thereafter let it stand for a while before making a record.

13 Q. Do you know how he made the record on it after treatment ?

A. In the ordinary way—by cutting into it.

14 Q. How do you fix the date of March 2d, 1899 ?

A. Because he recorded the date on the record.

Cross-examination by Mr. Massie :

15 x-Q. How often would you say, do you communicate with Mr. A. N. Petit, the applicant ; as often as once a week ?

A. Nearly every Sunday.

16 x-Q. You have frequently held conversations with him and his brother touching his celluloid schemes, have you not ?

A. I have.

17 x-Q. Would you mind stating whether or not you have consulted with Mr. Petit concerning the facts to which you have just testified ?

A. Nothing more than naturally talking about the subject ; nothing in particular.

18 x-Q. Have you yourself ever carried out Mr. Petit's process ?

A. In what manner ?

19 x-Q. In any manner to make a sound record.

A. I have.

19½ x-Q. What became of the records so made by you ?

A. They were shaved off and treated again.

20 x-Q. Have you them in your possession at the present time ?

A. I have not.

Cross-examination closed.

W. H. Jesmer.

Adjourned till 2 P. M. Thursday.

Met pursuant to adjournment.

Counsel present as before.

Albert A. Guigues, a witness produced in behalf of applicant Petit, being duly sworn, deposes and says, in answer to interrogatories propounded to him by Mr. Geo. T. Pinckney, as follows :

1 Q. Please state your name, age, residence and occupation.

A. Albert A. Guigues ; aged 45 ; reside at No. 62 East Park street, Newark, N. J. ; I am a chemist, inventor, and manufacturer of leather.

2 Q. Are you acquainted with Mr. Ademor N. Petit, one of the parties to this interference ; and if, so, how long have you known him ?

A. Yes ; I have known him since November, 1897.

3 Q. Did or not Mr. Petit ever explain to you or show you any improvements made by him in sound records of celluloid and the method of making the same ; if so, when, and what did he say or do ?

A. I have seen experiments made from November, 1897, until within the last few days, from the first stages as experimental work until they were put up as records, in cylinder form.

4 Q. What is the first record that you remember having seen Mr. Petit make ?

A. On Sunday, the 2d of March, 1898.

5 Q. What was the first date on which you remember hearing one of these records made by Mr. Petit, actually produce the sound recorded ?

A. The first full record was on March 2d, 1898 ; prior to that, I saw small samples of records, an inch or so wide ; I don't remember exactly.

6 Q. I now hand you a record marked " Petit's Exhibit original sound record of March 2d, 1899," and ask you whether or not you have ever seen the same before ?

A. This is the one that I referred to as having seen made on March 2d, 1898. This looks to be like the record I saw at that time, and if it is the same one, in giving forth the sound it gives for the sound this record made March 2d, 1898 or 1899. I think now myself it would be 1899 whichever it may be.

7 Q. Did this record work satisfactorily at that time and actually produce the sound understandingly ?

A. It did.

8 Q. Have you or not ever seen any other records made according to Mr. Petit's process other than this particular record exhibit referred to ?

A. I saw hundreds made by himself since.

9 Q. Have you or not had sufficient experience with celluloid or pyroxyline compositions to enable you to testify that the record shown you by Mr. Petit on March 2d, 1899, was made on celluloid ?

A. I have experience dating back at least fifteen years.

10 Q. Did Mr. Petit ever consult you in regard to celluloid solvents and other chemicals?

A. Repeatedly from November, 1897, until the present time.

11 Q. From your knowledge as a chemist, and your experience with handling pyroxyline and your acquaintance with Mr. Petit's method of making sound records on celluloid, do you consider the Petit method a practical one?

A. I do; the results I think have proven that.

12 Q. Have you read the specification of Mr. Capps, application in this interference, and, if so, do you under the same?

A. I have read it and I understand it.

13 Q. Please state whether or not, from your own knowledge and from your experience, there would be any difficulty in successfully engraving on celluloid after the surface of the celluloid had been treated by the process described in Mr. Capps' application.

> Objected to as incompetent, immaterial and not admissible. The issue before the Examiner of Interference is the question of priority of invention. This objection to stand to all questions and answers along this line.
>
> Counsel for Petit repeats his statement that, in view of the fact that Mr. Capps, both in his preliminary statement and in his deposition, has said that he has produced a successful record by the process described in his application involved in this case, it is competent on behalf of Mr. Petit to introduce evidence bearing on the correctness of such statement.

A. Yes.

CROSS-EXAMINATION, WITHOUT WAIVING THE OBJECTION JUST TAKEN, PROCEEDS DE BENE ESSE:

14 x-Q. Will you kindly state whether or not nitro-cellulose is a pyroxyline composition?

A. It is.

15 x-Q. Is the term "nitro-cellulose" identical with the designation "celluloid?" Do these two expressions indicate identically the same substance?

A. They do not.

16 x-Q. Will you please state briefly the difference between the two?

A. Nitro-cellulose is a nitrated cotton dissolved in a suitable solvent, that forms, according to the nitration, what is called nitro-cellulose pyroxylines, and from that, by the addition of metallic salts, camphor, solvents, and other chemicals, according to the idea of the man that wants to make a celluloid to suit his requirements.

17 x-Q. Having stated the method of producing nitro-cellulose, will you state some of the different characteristics between that article itself and celluloid? I refer to the properties or qualities of the articles themselves after they have been produced.

A. There is no similarity; they are an entirely different product.

18 x-Q. You have already testified that, from November, 1897, until the present time, Mr. Petit, one of the parties to this interference, has consulted you repeatedly in regard to celluloid solvents, &c. Did you give him any information on these matters?

A. I did.

19 x-Q. Would you mind stating, briefly, the nature of your disclosures to him?

A. I don't think I care of answering that, as it would give the public the benefit of ideas which it took many years to get together.

20 x-Q. Do you know, as a matter of fact, that, if a mixture of a celluloid solvent and a fatty oil be applied

to celluloid, the latter may then be cut or operated upon by a phonograph or the like?

A. What do you mean by a fatty oil?

21 x-Q. Have you any idea of the meaning of the term itself, as an expert?

A. I think you mean a fatty acid.

Question repeated, substituting for the words "fatty oil" the words "fatty acid."

A. A fatty acid to celluloid after it has received the solvent will act so as to give a clear and satisfactory record.

22 x-Q. Do you know the fact you have just stated of your own knowledge, or is this information that was repeated to you by some one else?

A. This is of my own knowledge.

23 x-Q. How did you ascertain this knowledge?

A. By experience. I have experimented with celluloid and pyroxylines for a number of years, and use them very largely in my business for several years back, and use them to-day.

24 x-Q. Can you state more definitely what you mean in your last answer by "number of years?"

A. At least 15 years.

25 x-Q. Have you any interest in the applications of Mr. Petit involved in this interference, or in his schemes or processes for producing celluloid sound records?

A. None whatever.

Cross-examination closed.

ALBERT A. GUIGUES.

GEORGE J. WERNER, a witness produced in behalf of Mr. A. N. Petit, being duly sworn, deposes and says in answer to interrogatories propounded to him by Mr. Geo. T. Pinckney, as follows:

1 Q. Please state your name, age, residence and occupation?

A. George J. Werner; aged 30; reside at No. 20 Jefferson street, Orange, N. J.; foreman of the Edison Phonograph Works.

2 Q. Are you acquainted with Mr. Ademor N. Petit, one of the parties to this interference, and if so, how long have you known him?

A. I am acquainted with Mr. Petit, between 7 and 8 years.

3 Q. Did Mr. Petit ever explain to you or show you any improvement made by him in making sound records of celluloid and the method of making the same, if so, when, and what did he do or say?

A. On June 13, 1897, Mr. Petit showed me a small wax cylinder covered with celluloid, and told me that he had made a record upon it; he then put it on the phonograph and reproduced it. I asked Mr. Petit how he made a record on this hard surface and he replied he had treated the celluloid with chemicals.

4 Q. How do you fix this date of June 13th, when Mr. Petit showed this to you?

A. This was the day I returned from a trip through New York State, Connecticut, after having closed an engagement exhibiting the vitascope.

5 Q. I now show you a record marked "Petit's Exhibit original celluloid record, June 13th, 1897," and ask you whether you have ever seen the same before?

A. I cannot notice any perceptible difference between this cylinder and the one I saw on June 13th, 1897.

6 Q. Did this record which you saw on June 13th, 1897, reproduce the sound understandably at that time?

A. Yes, sir.

7 Q. What do you know about or what experience have you had in making sound records and preparing the blank surfaces of the same, and are you or not an expert in that line?

A. Having had the experience of almost two years as foreman of the shaving department of the Edison phonograph works, Orange, N. J., where the cylinders are brought to be shaved and then given a final finished surface before going to the record taking departments, and all complaints regarding the surface or quality of the cylinders would come to me, I therefore consider myself an expert in this line.

8 Q. Please state whether or not, in your judgment as an expert, a sound record could be engraved on a surface that was slightly gummy ?

Objected to as immaterial and irrelevant.

A. A successful sound record cannot be engraved upon a gummy surface.

9 Q. Please state whether or not you have seen Mr. Petit make records according to the method described in his application involved in this interference ; and heard reproductions from such records, that, in your opinion as an expert, could be used commercially for practical reproduction of sounds that were recorded ?

A. I have seen Mr. Petit make records on this celluloid cylinder and heard them reproduced ; and they are commercial records.

10 Q. Have you or not had any experience in judging sound records for their quality ?

A. I am now actually engaged as the foreman of the record-testing department at the Edison Phonograph Works, Orange, N. J., and all records before going on the market must pass under my inspection, as to their quality and all other defects before going upon the market.

11 Q. Please state in what manner these records are tested by you ?

A. There are various ways of inspecting records by being tested on a phonograph by a girl or with an eye inspection. By an eye inspection I mean by looking at a record and judging from the cut of the styles whether it is cut proper depth or not.

12 Q. Are you able to tell by such inspection whether or not the record is a good or bad one ?

A. By a general eye inspection I can judge the general condition of a record, but not the sound of the same.

CROSS-EXAMINATION BY MR. MASSSIE :

13 x-Q. Are you foreman in control of the entire establishment, or merely of the record testing department ?

A. Of the record testing department ?

14 x-Q. How long have you had this position ?

A. Between 7 and 8 months.

15 x-Q. You were promoted directly from the charge of the shaving department ?

A. Yes sir.

16 x-Q. Do I understand that your company sends out any sound records that have not been tested upon a phonograph ?

A. No sir.

17 x-Q. Never ?

A. Never.

18 x-Q. Is your company, the Edison Phonograph Works, the same as the Edison United concern ; that is, are they practically identical interests ?

Objected to as immaterial and irrelevant and as improper cross-examination.

Counsel for Capps replies that Mr. Petit's counsel has undertaken to qualify the witness as an expert, and the cross-examination is directed towards identifying the witness and the opportunities he has had for becoming an expert, the places of his employment &c.

Counsel for Petit replies that he has no objection to cross-examination of the wineess as an expert, but he fails to see what connection it has with the matter in controversy or with witness' experience as an expert, for that matter, whether the Edison Phonograph Works, of which the witness is foreman, is the same as the Edison United Concern or not.

Question repeated.

A. I don't know.

19 x-Q. What material is employed by your company for making sound records?

A. Wax cylinders.

20 x-Q. What color are they?

Question objected to as immaterial and irrelevant.

A. Black, light brown.

21 x-Q. Any other colors?

A. No.

22 x-Q. Does your company ever use, or has it within the last three or four years, used a celluloid cylinder upon which to make a sound record.

Same objection.

A. Not to my knowledge.

23 x-Q. Have you ever made a celluloid sound record?

A. I have not.

24 x-Q. What do you understand by the expression "a commercial record"?

A. A salable record.

25 x-Q. Have you any knowledge, in this connection, whether or not any of Mr. Petit's records were actually sold?

A. I have not.

26 x-Q. Where were you at the time Mr. Petit showed you the cylinder referred to in your answer to question 3?

A. At Mr. Petit's house on Halsey street, Newark.

27 x-Q. Who was present besides yourself and Mr. Petit?

A. Mr. A. O. Petit, Jessmer and myself.

28 x-Q. What time of the day was it?

A. Towards evening.

Cross-examination closed.

Re-direct examination.

29 Re-d. Q. In answer to 19 x-Q. as to what material is employed by your company for making sound records, you have stated "wax cylinders;" will you please state more fully what you mean by the term "wax," whether or not it is cylinders made of the substance usually given that term or not?

Objected to as leading in form and as tending to prompt the witness.

A. The term "wax cylinder" is used by all phonograph companies, but what the ingredients are I don't know.

RE-CROSS-EXAMINATION:

30 Re-x-Q. This article you have referred to as "wax cylinder," whether or not it is actually composed of ordinary beeswax, is wax-like in its properties, is it not; that is to say, is capable of being cut cleanly and the material is removed in chips or shavings?

A. Yes.

31 Re-x-Q. Do you have to "treat" your wax cylinders with a chemical in order to enable a record to be made thereon?

A. When I receive these cylinders they are all ready to be recorded on.

End of re-cross-examination.

GEO. J. WERNER.

STATE OF NEW YORK, } ss. :
County of New York, }

I, JOHN J. O'BRIEN, a notary public within and for the County of New York, State of New York, do hereby certify that the foregoing depositions of Ademor N. Petit, Arthur P. Petit, Ellsworth A. Hawthorne, Frederick M. Prescott, Albert O. Petit, William H. Jessmer, Albert A. Guigues and George J. Werner were taken on behalf of said Ademor N. Petit, in pursuance of the notice hereto annexed, before me, at No. 302 Broadway, Borough of Manhattan, City and State of New York, on the 13th and 14th days of February, 1901; that the said witnesses were by me duly sworn; that the testimony of said witnesses was written out by Miss Sarah T. Haviland in my presence: that the opposing party was represented by C. A. L. Massie, Esq., representing Mr. Philip Mauro, during the taking of such testimony; that the said testimony was taken at the place and date aforesaid, commencing at 10:30 o'clock in the forenoon and adjourning at 5 o'clock the same day, and resumed at 10:30 o'clock in the forenoon of the next day, February 14th, and closing at 3:30 P. M. of that day, and that I am not connected by blood or marriage with either of said parties, nor interested directly or indirectly in the matter in controversy.

In testimony whereof, I have hereunto set my hand and affixed my seal of office at New York City, in said county, this 14th day of February, 1901.

JOHN J. O'BRIEN,
[Notarial Seal.] Notary Public,
New York City.

Translation "Petit Exhibit Augustin Letter."

BERTHIER, 18 January.

MY DEAR FRIEND:—I just received you letter this minute, and I make haste to answer it to thank you in the first place for your wishes for happiness, prosperity and specially longevity, which you express towards us. I return the same wishes for yourself and your little family, and, if the wishes we formulate for you realize, there will be only joy and happiness for you here below. You ask me, my dear friend, what attraction there may be in Canada that can make me forget my friends. Is it hunting or fishing, you ask. Let me tell you that it is neither the one nor the other. The friendship that I have for my friends is not of the sort that pleasure can destroy or even diminish.

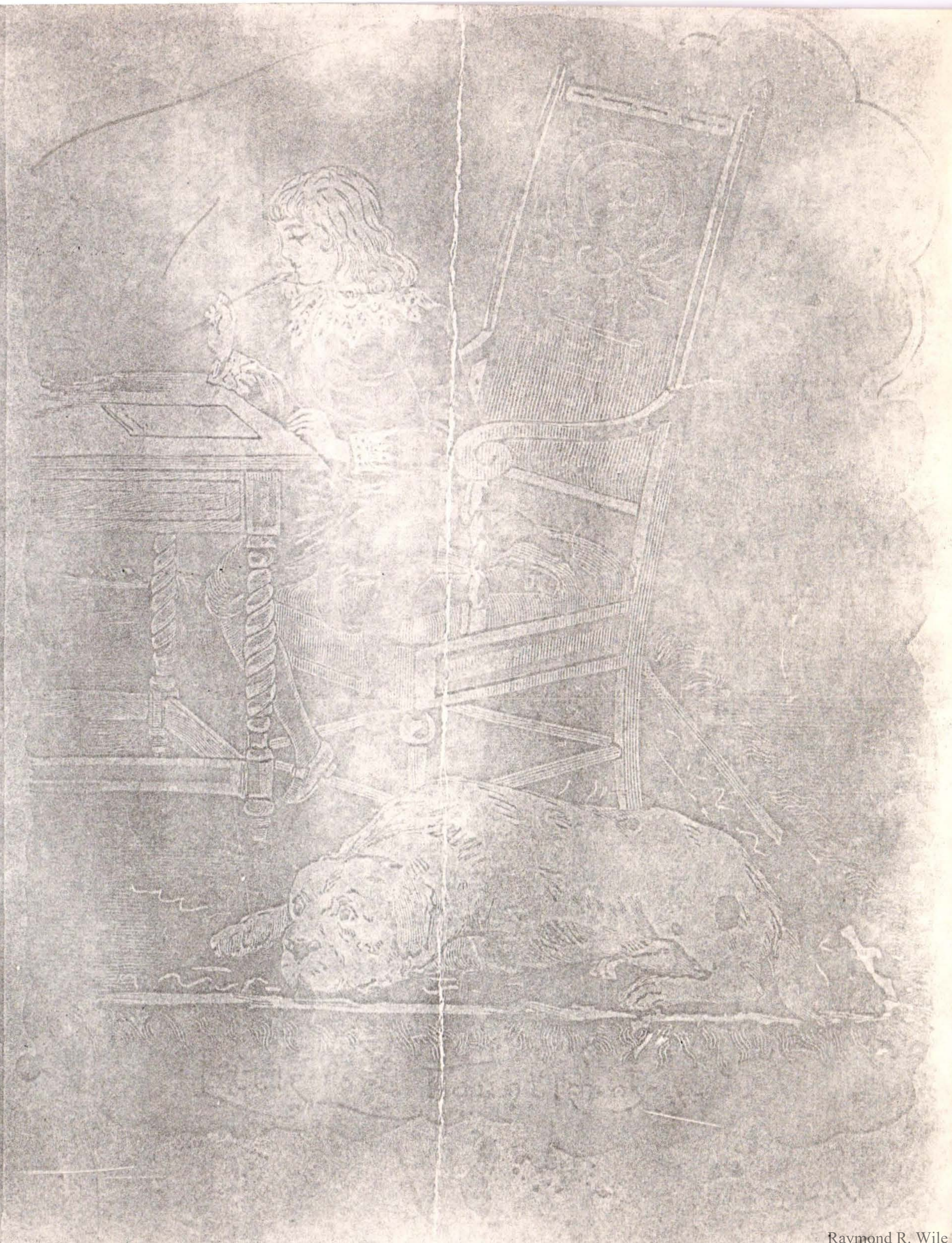
I have been very busy since I am here. Our house was in very bad condition, I had to put it all in order, besides that I must tell you that I am going to put up a small machine shop and a foundry with Mr. Lapoub, and I have run a good deal here and there to attend to all my affairs and that is the reason why I was slow in answering your first letter that I received. Now, you ask me if I remember the date on which you spoke to me of your discovery of the means to register the sounds on a cylinder of celluloid, after having submitted it to a chemical treatment. There is no possibility of an error as to the date. The first time that I paid you a visit at Roseville was on the first Sunday in the month of July, 1896, my wife having departed for Canada the last of the month of June of the same year. You know, you or Mrs. Petit, that I told you about the journey of my wife the first time that I paid you a visit, and I remember that really you spoke to me about your labors and your discoveries. If my testimony can be of some use to you I shall be entirely at your service, only too happy if I can help you to protect your interests. You can count on me in all confidence, only let me know what I can do for you. Answer me as quickly as possible, as I am anxious for you, and I should be much grieved if another than you should gather in the fruits of your labors.

Will you please be our interpreter with Mrs. Petit, and also with Aurore, to whom we all send our best wishes. In the hope of an early reply, I send you a good handshake.

Your friend,

L. AUGUSTIN.

6 parts Nitrate Ammonia 35c lb
4 parts Phosphate soda 15 lb
1 part Abs Alcohol c — 18



Talking machine for deaf people

Phonograph connected with typewriting bars or similar device and arranged so that a ~~deaf~~ deaf mute can operate same in conjunction with a phonograph

All ~~the~~ ~~[illegible]~~ say 500 or 100 diff words are upon one cyldr the instrument could, say by ~~pressing~~ ~~[illegible]~~ swinging the bar to a certain figure in index cause the phonograph to speak the word

Oct 28/95 — Use above stamping heads with a die in foil with medium hard body.

Dec 3/95 — Prepare matrix by making ~~flux~~ flux with tin foil materials to fill in the bad spots

How would stretching foil over a drum head do for recording

Nov 27" Electrotyped record from original wax ~~record~~ on disc. Surface very rough & shrill Record however sharp & distinct

Copp Polished surface of electrotype and thus improved the surface of ~~the~~ copper — but not record reproduction as the polishing ; evidently did not reach bottom.

Dec 3/95

Try indenting tin foil ~~the~~ amalgam by original record process

Dec 3/95 Process of ~~matte~~ making tin foil records by first rolling tin foil smooth as possible. & then washing it with quicksilver to take the remaining wrinkles out of it.

Dec 3/95 - ~~Prepare foil by pressing it onto plate glass white~~ -

Dec 3/95 Prepare foil by first coating surface with mercury then pressing it against smooth surface under heavy ~~pressure~~ pressure for 10 hours — & then let dry 3 weeks or so.

Dec 3/95 — Prepare matrix by making ~~flat~~ flux with tin foil

and mercury & pressing
original record in it & letting
it set. ×

Dec 3/95 — Prepare an original
disk record — then lay tin
foil over it & pour on
mercury (Hg) & rubbing it into
indentations ~~then~~ letting it set
& polishing it if necessary —

Dec 3/95 — Mr Capps scheme for
stamping tin foil records —
first prepare foil with Hg.

Dec 3/95 Process of making original
records as follows — Have sensitive
photographic plate and a recorder disc
needle with hole ~~so~~ in center admitting
light and causes the light to pass
through and then silver the whole

as in Daguerreotype process

Trace ~~off~~ on a non deposit taking
metal a sinuous line with plumbago
or etc & then electrotype the line

Jewell bottom bearing for
Tin Foil Phono.

Homophone (sound of a man

Ideatograph

Dec 5/95
Method of recording — Cover
glass with lamp black or ~~[illegible]~~
~~of [illegible]~~ & trace record
then cover with solution of wax
& [illegible] out tracing [illegible]

Dec 5/95 Poured LePages Glue on record
Record a perfect transfer.

Dec 5/95 Have recorder ~~rough~~ roughen surface so as to give varying ~~additional~~ resistance to prevent running over the points roughened

~~st~~
Dec 5/95 ~~Use~~ Use diamond point to cut record on glass or polished metal

Dec 6/95 Try other backing for the foil besides wax ~~such~~

~~Oct~~ Dec 6/95 Made a form of wax with a spiral grove and depress the foil in same as a guide for point for doll & regular phonograph.

~~Oct~~ Dec 6/95 Have a disk cut with a thread 100 to the inch and lay foil on a disk of beeswax & then press ~~whole in~~ The spiral line will then be sunk in wax & ready to receive the record by the indenting process

Dec 6/95 After electrotype is made soften the surface by plumbago

Dec 6/95 – Laquer to glue – for Positive –
General rule for plumbago
to each gallon of water
1/2 lbs copper sulphate
1/2 lbs concentrated sulphuric acid
use 0.064 amperes per sq inch
Use Hot water sufficient to dissolve sulphate of copper and add balance cold Do not mix all the sulphuric at once

Dec 7/95 – Made electro of reg. record. surface apparently O.K. filled with hot wax record fair – surface bad in spots.

Silver Wash

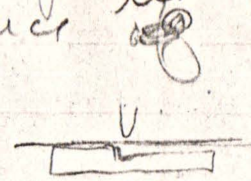
50 Silver Chloride
300 Potassium Cyanide
q.s
Water 1000

Indenting a record by pounding by a vibrating point of some kind. Indenting a record with a hot indenting points,

Jany 9/96 — Hollow indenting Point —

Jany Have a plate upon which the wax disc revolves arranged with a small hole under the place where the point ~~[illegible]~~ indenting point enters — The wax ~~cylinder~~ disc: b

be made of very ~~thin~~ material ~~who~~ ~~the~~ thin for the purpose of reducing the resistance ~~of~~ in the action of ~~[illegible]~~ indenting.



Jany 9/96 Method of Indenting phonographic records.

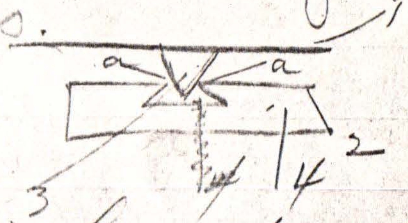
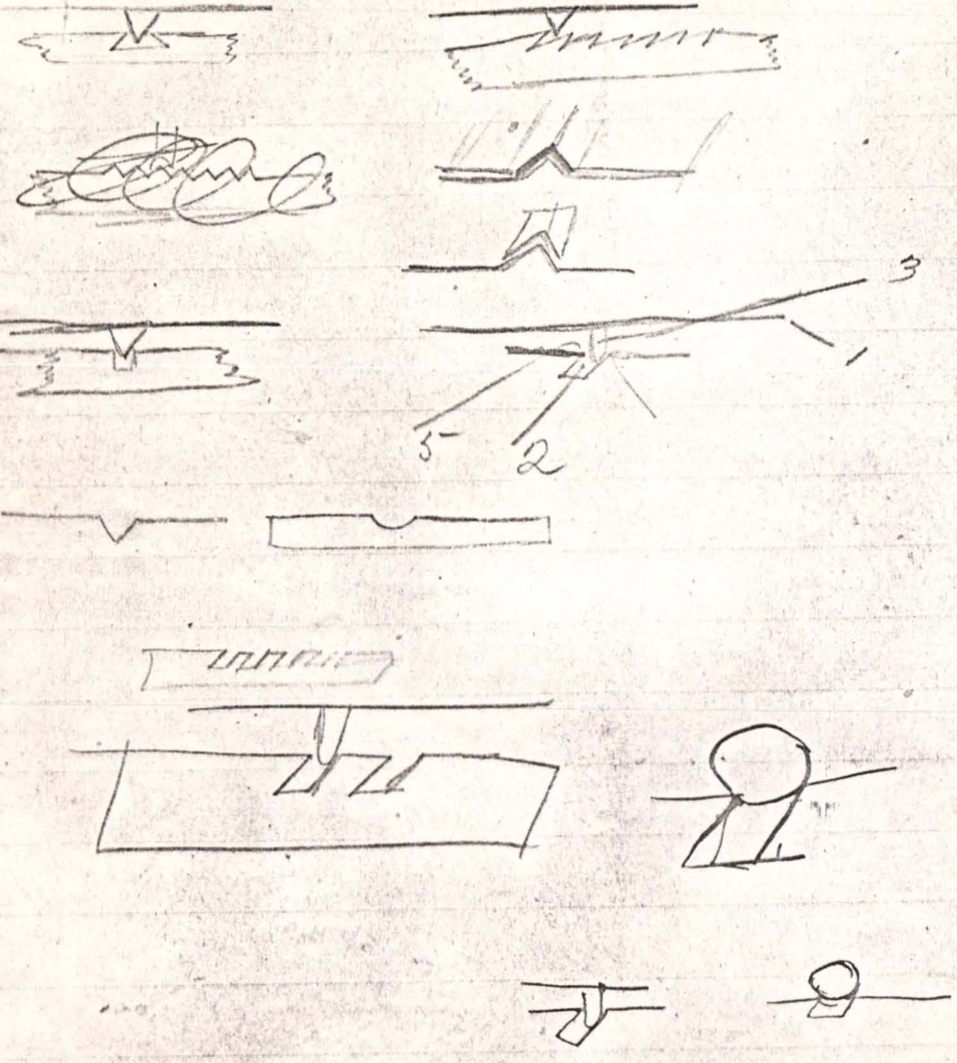


Fig no diaphragm to which is attached a burnishing tool 3. Fig 4 is a wax or wax like disk ~~[illegible]~~ formed as shown with the points a-a- In its normal position while disc revolving ~~not in action~~ the burnisher 3 does not materially effect &c. — but when the speaker is caused to vibrate it forces 3 down and the causes indentation to be burnished in edge of a-a

Jany 9/96 Various forms of prepared wax disks for indenting with burnishing tool



Combination lock for bicycles Jany 14/96

Jany 14/96 Bicycle lamps ~~or~~ by utilizing ~~mag &~~ ~~br~~ discharge spark from ~~co~~ primary coil with small batty

Bicycle lamp by utilizing frictional electricity ~~x~~ Have discharge take place ~~below in front of~~

Have elect spark ignite gas as in gas engines ~~#~~

Jany 14/96 ~~As an improvement~~ Have a disk with a volute groove upon upper side. Lay ~~the~~ a thin sheet of wax upon it and try indenting it

Jany 16/96 Sheet celluloid cylinder line record with colodium bath transfer to sheet celluloid

Candle to burn fiercely
Composed of chemicals of some kind
Sort of an imitation Elect (arc) light

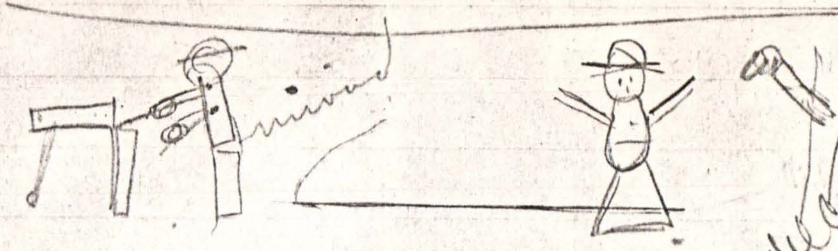
Scheme for storing sun
energy for ~~heat~~ powers

(Talk your letters)
Letter writing machine.
Square tablet, fair & etc —

Talks Any language

Automatic camera shutter ~~so~~ to give a delayed exposure and allowing time for operator to get around in focus before exposure occurs RHE

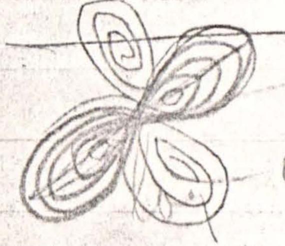
Letter talking machine



Model Competed Nov 26/94

~~Jumping yellow Kid to~~
walk a few steps & jumps

Use quicksilver



Frictional Elect machine

toy

Gramophone
For Doll have graphophone discs
for purpose ....

Dry mucilage pasters

Instead of thread have
string or rod 1/50 of an inch
thin for whirlity clock

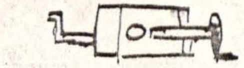
~~Century Run Bicycle Puzzle~~
~~up Hudson. Fall off Pallisades~~
~~Have puzzle start off on [illegible]~~
~~& not flat rings~~

~~Have progress down balls~~
~~sideways & throw them off~~

~~If one gets wrong track & jumps~~
~~off track get back again~~

~~Raised track to keep ball on~~
table

Bicycle Puzzle ~~Bz~~
to remove tire

To take out ball bearings 

Remove hind wheel bicycle puzzle

Patent shoe - removable soles

~~In century run must get every ball~~
~~in place & in place ground~~

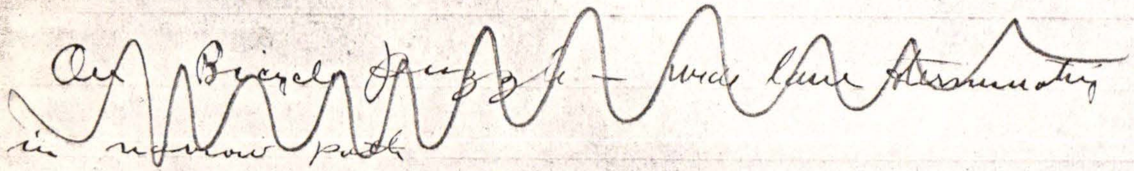
~~Have wheel carrier to carry balls~~
~~around & up to century again force~~

Chain Cutting machine

Merry go around (Toy)

~~Bowling Run — Have one ball leave Electric Alley other — won RR switch puzzle in curtain Run + shove. switch + outlets so constructed that the whole 3 balls will have to go through at the same time or w cannot catch up afterward~~

Shoes by Mail ~~25¢~~ 35¢ per pair



Air Bicycle Spring — wave line Accumulating in narrow path

Indenting method for records with some improved leverage principles such as duplicating them, Such as rolling cylder against soft cylinder

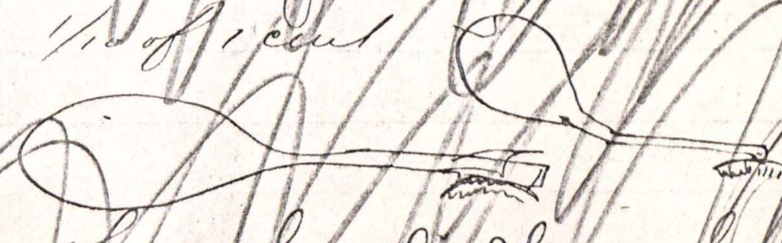
July 26/97

Hollow tooth brush with bulbe handle or to connect direct to faucet with rubber cap

Medicated tablets in the bulbe of say Listerine ~~&c~~ or &etc

Electric Spray. Have water spray and static current follow spray to face or hair.

~~Probably large bulb tooth brush handle would be best. Simpler — and could be made to fill direct from faucet, Could clean clean easier. Sanitary, Could have it filled with Listerine water wash. 1/10 of 1 cent~~



~~could have brush clean both sides of teeth — front + back~~

~~Celluloid~~ July 29/97

July 29/97
Preparation for making masks of faces & etc. Make a good living—cheap pri Sell preparation & directions. Agents wanted. Paraffine or soft wax. Have paper next to it so as not to soil the skin. Have some material not viscous.

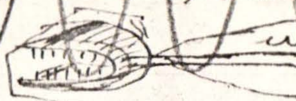
Phonograph. Have had thread run between two rollers and have the rollers actuated from original record & move record on thread — July 29/97

Phonograph Clock Tells Time July 29/97

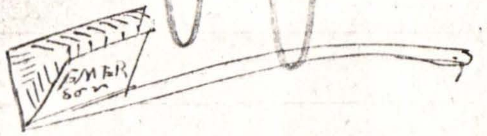
[illegible]

~~Face carset~~

~~Tooth brush to brush both sides of teeth~~



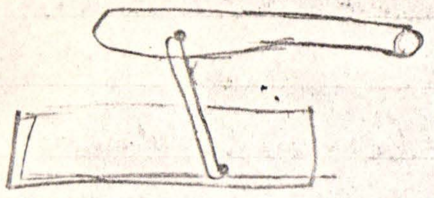
~~Brush to form part of lid for celluloid circular box or have brush shut like a knife so as to protect the brush for pocket use.~~



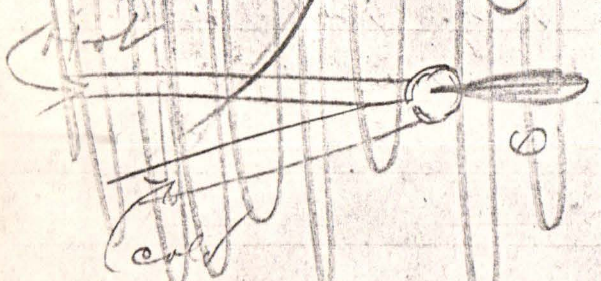
Speed indicator to indicate the rate of travel.

Candle—Calcium Carbide Gas Imitation mix with iron filings to intensify flame

Disappearing cannon for Toy



A single faucet for giving Apr 21/98 either Hot, Cold or just tepid water by turning handle to one of 3 places. Or use an automatic Ball bearing principle that the faucet will always wear tight.



cold water. When the bar is ~~to left~~ at point would get Hot water

Home pointer point to Hot or cold

Apr 21/98

to duplicate on the metallic strip, or Have strip of flexible & soft material capable of receiving an impression from an ordinary amount of pressure. Let the ~~the~~ strip be fed between an ~~a~~ impressing tool and the record and to feed through and sideways at the rate of 100 to inch the material would then be pressed into the ~~same~~ indentations of the line

---

Apr 21/98

* Could put faucet on next page the gas constructed with a hard rubber strip so that at a certain temperature the water would allow more cool to faucet. It is regular valves

Oct 22/1898 — Pocket typewriter. Have rubber band with alphabet on ~~rub~~ revolving rubber band to pass over the end.

Oct 23rd 1898 — Advertising clock with ribbon of advertisements to automatically ~~release~~ release action and expose successive advertisements.

Nov 3rd 1898

How would a window advertising scheme do to have band say an foot released every five minutes and some attraction device for calling attention when about to change. Might have a window clock. It or hour glass. To run backward ~~out automatically~~ when clock is wound up — or to feed back automatically after the tape has run full one way. Tape could be printed on a large ~~type~~ style typewriter

Automatic card ~~[illegible]~~ dealing mechanical machine.

Continuation of clock and tape advertising scheme — could have tape on roller with independent spring ~~that~~ would be released every five minutes & not part of clock — It would wind up ~~it~~ automatically & clock would only have to release the escapement.

Good scheme for elevated railroads and street cars.

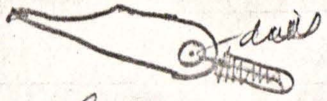
Good scheme for cigar lighters: cigar cutters & etc. — Work on scheme for car add space on acct of cost of space. Have cuckoo clock to attract attention

Nov 7 — 98. Use kinetoscope tape as advertising scheme and have bell call attention

Dec 98 — Have phonograph record dipped in laque — silicate of soda or gelatin & Etc and allow same to dry. If the material is hard this should permit the record wearing longer and should be valuable as a master for duplicating — or for a record to use on slot machines & Etc.

To manufacture Spook Slates See Scientific American for Oct or Nov of 1898

Scales Scoop by simply looking at dial on end of scoop



Other patents require too much time

Write announcement - Spook slate -

Camera for taking moving picture and reproducing them — cheap

---

Toy talking letter machine.
Record by indenting & reproduce

Talking Doll disc — Repeater scheme

Aluminum	Al
Antimony	Sb
Bismuth	Bi
Carbon	C
Cobalt	Co
Copper	Cu
Gold	Au
Hydrogen	H
Iron	Fe
Lead	Pd
Mercury	Hg
Nickel	Ni
Phosphorus	P
Platinum	Pt
Silicon	Si
Silver	Ag
Tin	Sn
Zinc	Zn

Pocket check perforator attached to
check book —

Dec 8/49

Transfer by mechanical or printing process from cylindrical record to disc

COPY
from
THE NATIONAL ARCHIVES
Record Group No. 241

Intf. No. 20769 Paper No. 47

C. G. Burgoyne's Printing Business, 146-150 Centre St., N

IN THE

UNITED STATES PATENT OFFICE.

CAPPS
v.
PETIT.

Interference No. 20,769.
Subject Matter: Celluloid Sound Records and the Method of Producing the Same.

MEMORANDUM ON BEHALF OF CAPPS.

Subject Matter of the Interference, Invention of the Issue.

The Examiner of Interferences is well acquainted with the ordinary sound record for graphophones and phonographs. The material of which this article is composed is defined as "wax-like," and is capable of being readily and cleanly cut by the recording stylus, the material being thereby removed in chips or shavings. Of course, the softer the material is the easier it is to cut; but, on the other hand, the sooner the record will wear out under repeated reproductions. Therefore, an ideal sound record would be one composed of comparatively hard material which had been temporarily rendered susceptible of receiving the record.

Celluloid has long been one of the dreams of persons in the talking-machine art. It has the smooth

U. S. PATENT
[illegible]
OFFICE

surface and durability that are essentials in a sound record, but its *hardness* seemed to be an insuperable barrier to its use.

It has long been known that celluloid could be softened by heat or by various solvents, but the difficulty in engraving a sound record thereon was that the softened celluloid was too gummy and sticky to be cut cleanly.

Capps made the discovery that if the softened celluloid were permitted to stand for a while it would assume a consistency in which it could be cut. This temporary condition he designated "crispness," and upon this discovery he based one of the claims in his application, which is count 2 of the issue:

"The method of producing sound records in celluloid, which consists in first softening the celluloid; THEN PERMITTING IT TO STAND UNTIL IT ASSUMES A CRISP CONSISTENCY, and while in that condition cutting or engraving therein a record of sound."

This second step—the "then permitting it to stand"—is *the foundation* of the invention.

As the result of this method a new article was produced—an original sound record *engraved* or *cut* directly into celluloid. This is set out in count 1 of the issue as follows:

"As a new article of manufacture, a celluloid tablet having *engraved* thereon a record of sound."

A celluloid tablet having a sound record *impressed* into its surface is not new. Neither are *molded* celluloid records—that is, sound records produced by the evaporation of a celluloid solution deposited upon a matrix surface. In other words, the invention of count 1 of the issue lies in the fact that the article has been produced by a direct *engraving* action into the celluloid.

Burden of Proof, How Met.

Prima facie, Petit completed the invention recited in the two counts of the issue on July 30, 1900, his filing date, or—if he be given the benefit of an earlier application—on October 27, 1899; while Capps' *prima facie* date is April 3, 1900. The burden of proof is, therefore, on Capps. His preliminary statement sets up that he conceived the invention and disclosed it to others on or about January 1, 1895, and actually reduced it to practice on or about March 6, 1895, and again at various times in 1896 and later. If the testimony adduced on behalf of Capps establishes these dates, the burden is then shifted to Petit. Petit's statement assigns, as his date of conception, January 4, 1896, disclosure to others in the early part of 1896, and the earliest reduction to practice in November, 1897, and again in February-March, 1899. Assuming for the present that each party has fully established the dates he assigns, priority is to be awarded to Capps, who was not only the first to conceive, but who actually reduced the invention to practice before Petit's earliest alleged date of conception.

In the outset we desire to emphasize this point: Recalling that this discovery (that softened celluloid, when allowed to stand for a while, will assume a consistency of crispness susceptible of being readily and cleanly cut) is *the foundation* of this invention, it is apparent that after an inventor has once made this discovery it will require no long time—no protracted experiments and investigations—to carry out this idea. There is no further need for *invention;* all that remains is to select the best solvent, etc., and to ascertain the proper time for the celluloid to stand after treatment. Accordingly, Capps, having once made the discovery, proceeded at once to carry it out (see testimony of Capps, Qs. 7, 10, etc., and of Emerson, Q. 11, x-Q. 70, etc.). On the other hand, Petit, while claiming conception and disclosure to others during January, April and June of 1896, and May and June of 1897, by his own statements and testimony did not reduce the invention to practice by carrying out this process until November of 1899, nearly ~~two~~ four years later. This should be conclusive of either one of two facts—either he did not conceive the invention *of the issue*, or he and his witnesses are mistaken as to *dates*. We believe that we shall satisfy the Examiner of Interferences as to both of these facts.

We shall first briefly point out the pertinent portions of the testimony for Capps, and show how he has established each date assigned; and then we shall undertake to show wherein Petit's evidence fails to establish his dates.

Capps' Case.

Capps' date of conception and of disclosure to others is January 1, 1895, and of earliest reduction to practice March 6, 1895. His proofs on these three points consist of his own testimony, supported by the testimony of Emerson, and corroborated by contemporaneously written memoranda, and by the production of one specimen of sound record (embodying count 1 of the issue) as well as of the apparatus he then employed to produce this record (by the method constituting count 2 of the issue). The invention was again carried out in January, February and March, 1896 (Capps, Emerson); in June-July, 1897 (Spencer, Emerson); in April, 1898 (Capps, Emerson); in January, 1899 (Reynard, Emerson); and in the early part of 1900 (Emerson, Gregory, Smith); and even during the present year.

In every instance Capps' witnesses testify to *facts*. They state just what was done and what they saw; what steps were taken, how they were taken, and what was produced. On the other hand, Mr. Petit and (in nearly every instance) his witnesses content themselves with stating conclusions instead of facts; as "I carried out the method of my invention," or "I made a record in accordance with my application," without enumerating or describing the various steps taken, and not defining what was produced or how it was done. It is for the Examiner of Interferences to say whether or not certain steps constitute "the invention" or are taken "in accordance with" an application, and whether or not the acts performed and the thing thereby produced are or are not the counts of this issue. This is well recognized, and it is unnecessary to cite any case law to the point.

Capps' conception and disclosure and reduction to practice: "Capps' Exhibit Original Celluloid Record" is described as being "made of celluloid" (Capps, Q. 15, p. 8), "produced by engraving" (Capps, Q. 20, p. 9), "by softening the surface of the celluloid with a solvent and afterwards engraving the record" (Capps, Q. 16, p. 8), Mr. Capps explaining that he used different solvents, either collodion or amyl-acetate (Capps, x-Q. 54, p. 14), or softened the celluloid by heat or hot oil (Q. 36, p. 11). Mr. Emerson testifies that this exhibit was "produced by a direct engraving action into or upon the celluloid" (Emerson, Q. 18, p. 21); that he and Capps "put the solvent on the record which softened the surface, let it stand for about two weeks and then engraved the record" (Emerson, Q. 20, p. 21). Mr. Emerson also identifies "Capps' Exhibit Original Machine" as being the very instrumentality by which the celluloid record was engraved (Capps, Qs. 7–17, pp. 23, 27; Emerson, Qs. 12, 13, p. 20). All this establishes the fact that this "original record" embodies count 1 of the issue and was produced in accordance with the method forming count 2 of the issue.

As to the *dates*, Mr. Emerson produced an original note book kept by himself and read into the record an entry written by him and dated March 6, 1895. This extract (p. 18) shows that the celluloid was to be *cut*, and that a thread or shaving (Emerson, Q. 7, p. 19) was removed by the cutting action of the recorder; that a "thinner" or solvent had been used already, and Capps and Emerson contemplated using one that would "act slower"; hence, the "then permitting it to stand" in the issue. Mr. Capps recalls that during the early part of 1895 and before that time he had been employed by the United States Phonograph Co. (Capps, x-Q. 52, p. 14); that he made the "Original Machine" "nights and Sundays," because he was regularly employed on other work and could not make it any other time (Capps, Q. 23, p. 9); that he made it at the premises of the U. S. Phono. Co. (Q. 24, p. 10), having no other place at that time (Q. 25), but that in November of 1895 he did procure a place of his own on Sheffield street (Q. 26). He is absolutely certain, therefore, that this machine *must* have been made before November, 1895. He further fixes the date by recalling distinctly that, while he was making this "Original Machine" and the engraved celluloid records, his regular work consisted in some spring-motor work for the U. S. Phono. Co. (x-Q. 57, p. 15). It is a matter of record in the Patent Office that Letters Patent No. 570,378, dated October 27, 1896, for "Spring Motor for Phonographs," etc., were granted upon an application filed by this same Frank L. Capps, of Newark, N. J., and executed by him in November, 1895. Of course he did the work on that machine before the application was prepared. After producing the memorandum written on March 6, 1895, Mr. Emerson testifies that this entry related to this same method as carried out by this same "Original Machine" to produce this very "Original Celluloid Record," and that it was meant to note the invention of Mr. Capps (Emerson, Qs. 10, 11, 12, etc., p. 20 *et seq.*). Further than this, Mr. Emerson testifies as to certain particulars of events taking place at the time this original record was made "at 208 Orange street, where I was at that time making our first experiment" (Q. 46, p. 27). The record itself bears intrinsic evidence of these occurrences (Emerson, Qs. 46–48, p. 27), and its appearance indicates its age, having become "shrunk and warped as all celluloid will" (Emerson, Q. 14, p. 21).

An examination of the "Original Machine" will show that its "speaker" is unusually heavy, and is mounted in a very rigid manner, so as to adapt it for engraving into an abnormally hard surface. It would not be too much to say that this machine bears intrinsic evidence of being constructed for no other purpose than to engrave a record into celluloid. And, it being conclusively shown that the machine was constructed in the early part of 1895, it must follow that the inventions constituting the two counts of this issue were at that time well known to Emerson as well as to Capps. They "were so sure *at the time* that they [we] thought they [we] would start in and complete the entire thing"—*i. e.*, the "Original Machine" (Emerson, x-Q. 70, p. 31).

Capps' later work: Mr. Emerson produced contemporaneously-written memoranda showing that on January 16, 1896, and again on February 18, 19, and March 2, 3, 1897, he was ordering celluloid, both sheets and tubing, and various celluloid solvents (Emerson, p. 22), and he testifies at various places that he and Mr. Capps were engaged throughout this time (not *exclusively*, of course) in producing other original engraved records in temporarily-crispened celluloid, both disk and cylinder.

As to these various memorandum books and note books, while it is true that they were not discovered in time for Mr. Capps' first preliminary statements, yet their subsequent presence is amply accounted for (and their temporary loss explained) in Capp's deposition (Qs. 31–34, p. 10) and in Mr. Emerson's (Q. 34, p. 24, and elsewhere at length). This point has been so fully considered by the Examiner or Interferences on the hearing of our motion to amend the preliminary statement, and afterwards on the appeal, that it is a mere waste of time to dwell on it further.

The invention was again carried on the year following, in 1897, as testified to by Mr. Spencer and Mr. Emerson. These two gentlemen were in the beginning of that year connected with the U. S. Phono. Co., already referred to, and on leaving that concern joined in opening an establishment of their own on Fifth avenue in New York. It doss not appear that they met with any great success in this undertaking, but, at any rate, thay were burned out before the middle of that year (a circumstance likely to impress itself upon them) and both then entered the employ of the Columbia Phonograph Co. (Spencer, Qs. 21–23, p. 52; Emerson, Q. 6, p. 54). During the summer of this year, 1897, Mr. Emerson, again feeling independent, devoted himself to this question of celluloid records. Having equipped a laboratory at his home, he had Mr. Spencer (a vocalist) come there and sing records into a machine for him. Mr. Emerson testifies that disks of sheet celluloid were dipped in "thinner," allowed to stand, then put on the machine, and Mr. Spencer sang and spoke to the machine, and thereby produced the article of count 1 by the method of count 2 (Emerson, Q. 7, p. 55). Mr. Spencer, besides corroborating Mr. Emerson as to dates, testifies that "in the summer of 1897, June or July" (Spencer, Q. 3, p. 49), he sang into a machine (phonograph), making a record directly into the celluloid (Spencer, Q. 2); that the records were intelligible—"The talking record was particularly good" (Q. 7). Mr. Spencer was so much interested and so well satisfied with the success of the method, that he put money into it (Spencer, Qs. 19, 20; Emerson, Q. 9, p. 55).

Again, in April, 1898, Mr. Emerson obtained some brass cylinders coated with celluloid for himself and Mr. Capps to carry out the invention. He produces the original bill rendered from the Celluloid Company ("Capps' Exhibit Emerson Bill"), which establishes the date conclusively, and also one of the articles, "Capps' Exhibit Celluloid-Coated Cylinder" (p. 24). Again, in January, 1899, and at different times less than a month apart, and up to November, 1900, Mr. Reynard carried out the same method and produced the same articles under instructions from Mr. Capps and Mr. Emerson. Reynard says he softened celluloid with some sort of solvent, and after letting it dry for a while he recorded on it by engraving with a phonograph or with the "Original Machine" (Reynard, Qs. 6, 10, 11, pp. 43, 44); that he listened to the reproductions from these records and that they were understandable (Qs. 8, 13). Mr. Emerson corroborates Reynard's testimony (p. 55, Qs. 10–15). Charles B. Gregory carried out the same invention in March, April, etc., 1900, under the directions of Capps and Emerson. He testifies that he applied a solvent to the surface of celluloid; then, after waiting a suitable time, he engraved the record (Gregory, Q. 6, p. 40). In this connection it might be noted that Gregory as well as the other witnesses named the various solvents of celluloid they employed, and that what is known as "thinner" is also referred to in the Capps specification. Mr. Smith produces a record that was made in his presence by the Capps method, and which is the Capps engraved celluloid record ("Capps' Exhibit Smith Record," p. 48). Mr. Smith corroborates Mr. Gregory as to when and how this record was made. Mr. Emerson corroborates Messrs. Gregory and Smith (Emerson, p. 54, Qs. 3, 4).

An attempt having been made to show that Capps' method was inoperative, Mr. Capps took the precaution during the taking of this testimony to carry out his process in the presence of witnesses. Messrs. Frank W. Bird (pp. 60–64) and J. W. Housel (pp. 65–67) testify that they went to Capps' establishment at his request, saw him take two celluloid cylinders, dip each into an alcohol bath, then let them stand for exactly five minutes, and afterwards put them on a machine, and that then Mr. Emerson talked into the machine and made the records. These two disinterested witnesses marked these two engraved celluloid records with their initials, and they are now in evidence. Mr. Capps corroborates them (p. 57). On the next morning three more records were made "in the very identical same manner;" the graphophone recorder in producing the record "cut a long shaving" (Capps, p. 59, Q. 17), the celluloid being of the proper consistency for the engraving (p. 59, Q. 18).

Petit's Attacks on Capps' Case.

Another attempt was made on behalf of Mr. Petit to show that "Capps' Exhibit Original Celluloid Record" is not "a true reproduction of the sounds that were attempted to be made thereon" (A. N. Petit's testimony, p. 16, Q. 57). He bases this conclusion solely and entirely upon an eye inspection that he made through a magnifying glass (Petit, Q. 56, p. 16). He also calls George J. Werner as an expert to testify—not that Werner considered the Capps "Original Record" an incorrect reproduction of the original sounds recorded thereon, but that it was possible for *Werner*, not Petit, to determine the condition of a record by eye inspection alone. Mr. Werner states with truth that by an eye inspection he can judge whether the cut of the stylus in a phonograph record, a *wax* cylinder (Werner, x-Qs. 19, 23), is of the proper depth, merely the "general condition of a record," and nothing else (Werner, Qs. 11, 12). He is emphatic that he and the company he represents *never* place any reliance upon this so-called "eye inspection" (Werner, x-Qs. 16, 17). Since actions speak louder than words, Mr. Werner thus repudiates this test and Petit's attack fails. We might urge that the very fact of the present poor condition of this "Original Record," which Petit supposes to be favorable to himself, is proof of its having been made years ago.

In order to show the Capps process inoperative, Mr. Petit called two *merchants* of Montclair, New Jersey. These gentlemen (E. A. Hawthorne and F. M. Prescott) are not qualified as experts; but they are both interested on Mr. Petit's side. Mr. Hawthorne is "interested" in Petit's foreign applications (Petit's Record, p. 29, x-Q. 21), and had some contingent interest in the Petit application involved herein (Same, x-Q. 22). Mr. Prescott holds "the option for the sale of all his [Petit's] U. S. Patents granted and applied for," thus including the Petit application in this interference (Petit's Record, p. 36, x-Q. 25). In the face of the overwhelming counter-testimony of eight witnesses (Capps, Emerson, Gregory, Reynard, Spencer, Smith, Bird and Housel), the deposition of these two merchants—self-styled experts—establishes no more than their own want of skill. They are not "persons skilled in the art," and their testimony concerning inoperativeness will therefore be disregarded.

It being realized that Petit's case was lost unless he could in some way impeach or destroy Capps' case, these same two witnesses undertake to report a conversation (hearsay) of Mr. E. D. Easton, whom they were seeking to interest in the Petit application. Their report of this statement of Mr. Easton's was properly objected to, and the objection duly noted (Petit's Record, p. 27 and p. 34.) What they report Easton as saying is that the American Graphophone Co. in November, 1900, had never been able to make a record on celluloid on which the sound did not ultimately disappear (Hawthorne, Q. 13, p. 27; Prescott, Q. 15, p. 34). Mr. Smith was present, during part of this interview at least (Hawthorne, Q. 15, p. 27; Prescott, Q. 16, p. 34), but he heard no such statement (Smith, p. 49, Q. 6). Mr. Easton himself (p. 71) gives a full report of this interview, and states what is evidently the *history* of it. Since it is abundantly established that records could be produced by the Capps process herein involved, Easton having promoted

Gregory for proficiency in this very work (Gregory, Qs. 15, 16; Emerson, p. 54, Q. 2), and the "Smith record" being at least a year old, it is scarcely possible that Mr. Easton would have said his company could not get a *permanent* engraved celluloid record. He had heard of such trouble *elsewhere* than with the Capps process (meaning thereby, perhaps, this same Petit scheme), and therefore made the inquiry as to whether that particular Petit record shown him by Hawthorne and Prescott would disintegrate. The latter part of Mr. Easton's answer, taken in connection with Hawthorn's answer to x-Q. 18 (Petit's Record, p. 28), bears testimony to the accuracy of Mr. Easton's memory.

To sum up, we submit that Capps has amply established as facts: (1) that he conceived this very identical invention recited in counts 1 and 2 of the issue herein, and disclosed it to others at least as early as March 6, 1895; and (2) that he succeeded in actually reducing the same to practice on March 6, 1895. Further, that he never abandoned his invention, but was engaged in developing it during 1896, 1897, 1898, 1899 and 1900—that is, from the date of his first conception continuously at short intervals up to the present time. The only conclusion (even conceding—*which we emphatically do not*—that Petit has established the dates set up by him) is that priority must be awarded to Capps.

Petit's Case.

Mr. Petit assigns, as his date of reduction to practice, November, 1897, and, of course, cannot avail himself of any earlier date, though as a matter of fact his own admissions tend to show that his earliest *actual* reduction to practice was in the spring of 1899—nearly two years later. As to conception and disclosure, the dates set up in his preliminary statement and referred to by his witnesses are: January 4, 1896; January 12, 1896; April 24, 1896; July 5, 1896; May 15, 1897, and June 13, 1897. His own testimony, unless supported by other witnesses or documentary evidence, or corroborated by attendant circumstances, is of no evidential weight. And unless the testimony of his witnesses and documents discloses *facts*, showing disclosure of *every* step constituting the invention of the issue, such testimony does not amount to *proof*. An examination of his record will show not only that his witnesses stated nothing but their conclusions, without giving facts by which the correctness of such conclusions can be determined, but that in many instances the dates assigned by different witnesses are inconsistent, and are frequently contradicted by known facts.

Conception he fixes by a memorandum bearing the date January 4, 1896. This memorandum purports to note the "'Idea' of softening celluloid, with a solvent and a fatty matter, to enable cutting into for making phonograph records"—merely *as an idea*. But it does not disclose the essential step of count 2 of the issue—"then permitting it to stand until it assumes a crisp consistency"—nor, except by inference, does it disclose count 1,—the new article of manufacture.

Disclosure was made on three occasions: "On the second Sunday following New Year's day of 1896 [January 12, 1896] I disclosed to Albert O. Petit this invention; and on April 24, 1896, before Albert O. Petit I made a practical demonstration of the invention; and on the first Sunday of the month of July, 1896 [July 5, 1896], I disclosed the invention to Lewis Augustin" (Q. 11, p. 8).

To support this last statement he produced a letter written in French and said to be from Augustin, and his counsel offers in evidence an alleged translation. In the absence of any stipulation to that effect, the translation alone, unaccompanied by the original and by the two letters (Q. 13) to which it purports to be a reply, is clearly inadmissible. And since there was no opportunity to cross-examine Augustin, the alleged translation "Petit Exhibit Augustin Letter" (p. 57), can have no evidential weight. Recalling that Petit's preliminary statement had been executed as early as October 30, 1900, and that the Augustin reply to Petit's *two* letters is dated January 18, the importance of Capps having an opportunity to examine Petit's letters to Augustin is obvious, and the incompetency of the Augustin translation is clear. Aside from all these objections (promptly taken and duly noted on the record, Petit's, p. 8), this exhibit translation merely discloses that the celluloid was to be "submitted to *a* chemical treatment." It is needless to say that the idea of *in some way* subjecting celluloid to some *sort* of chemical treatment, to enable it to receive a sound record, has long been cherished by investigators in the talking-machine art, but until one has clearly perceived *what* chemicals he shall use, and *how* the celluloid shall be treated (first, apply the selected solvent, and then let the softened celluloid stand until it becomes crisp), he has not made the invention of the issue. And, unless the testimony adduced to establish *disclosure of the invention* sets forth both of these two essential facts, the claim of disclosure *of the present invention* is not established. By this test, neither the memorandum, dated January 4, 1896, nor the translation of the Augustin letter, supports Petit's claim of *a disclosure of the invention.*

Albert O. Petit is called to support the claim of disclosure in January and April of 1896. As to the first occasion, he says he first learned of the invention "from my brother Ademor N. Petit," etc. (Q. 4, p. 38). Since this statement as to the treatment with "chemical processes" is admittedly merely hearsay, it is *not evidence;* and since this witness admits that he does not even *know* that the article his brother showed him was in fact celluloid, but merely assumed it from that brother's say-so (x-Q. 25, p. 43), his testimony

amounts to this: that on a certain occasion his brother (whose testimony, of course, has in itself no evidential weight) showed him an article, and *told* the witness (hearsay) that it was "celluloid;" *told* him (hearsay again) that it had been "treated with chemical processes;" and then scratched the article with a sharp instrument. As to the second occurrence, he states that on April 24, 1896, his brother showed him a cylinder having a "band of celluloid film," and "*said* he had treated it to chemicals" (hearsay again). The witness is satisfied that on this occasion the thing he saw was celluloid (x-Q. 29, p. 43), but he is *emphatic* that the date was *Sunday, April 24, 1896* (Q. 5, x-Qs. 16, 1[illegible]). As a matter of fact, in 1896, April 24 "happened to be on a" *Friday;* but April 24, 1898, *was Sunday.* It is exceedingly probable that the disclosures to Albert O. Petit and to Augustin (whatever they amount to as evidence) took place in 189*8*, and not in 189*6*. The testimony of Guigues, considered later on, seems to bear this out. The thing alleged to be produced in April, 1896, is made an Exhibit, and the witness Albert O. Petit identifies it. But it is not shown to be *engraved* (as called for by the issue), and is admitted (Q. 33, p. 11) to be a failure; and since it might have been produced by one of Petit's other methods, not engraving (Q. 54, p. 15; x-Qs. 82, 83, pp. 19–21), or by the Lambert molding process ("Capps' Exhibit Lambert Celluloid Patent," Capps' Record, p. 57), there is no *proof* that this Exhibit was produced by the method forming count 2 of the issue; and the exhibit does not avail to corroborate an otherwise unsupported claim.

We submit with confidence that there is no *proof* that Mr. Petit either conceived or disclosed to others the inventions forming the issue of this interference, at any time during 1896.

1897.

Next in chronology is May and June, 1897, and the witnesses are the applicant himself, and Albert O. Petit, Jessmer and Werner. There is nothing but the most general and hearsay evidence touching occurrences in May. Ademor N. Petit testifies that on June 13, 1897, in the presence of his brother Albert and Jessmer, he made a *model* record on celluloid, "according to my method described in my application" (Q. 20, p. 10), and offers an exhibit said to be that model. Later the same day he showed this article to Werner. Petit does not assume to say *how* he treated the celluloid, or whether the record was *engraved*; he does not testify to *facts*. We submit that it is for the Examiner of Interferences to say whether certain steps are or are not "in accordance with" the description in an application, and *what* steps were taken is not stated. As to the model itself, it contains the marks of certain experimental failures (x-Q. 61, p. 16)—possibly the outcome of this transaction in June, 1897.

Albert O. Petit does not help as to *facts*: His entire testimony on this point is found in answer to Qs. 7-14 (pp. 39, 40), and he nowhere attempts to say that his brother (1) took celluloid; (2) softened it—with a solvent or with any chemical, or in any way; (3) let it stand until it assumed a crisp consistency, and (4) while in that condition *engraved* a record upon it. Albert Petit is not even sure that the thing then employed was celluloid (x-Q. 35). His testimony amounts to this: that on a certain occasion his brother made a sound record of *some* material, probably celluloid, by *some* means (not stated); and in answer to Q. 15 he states that some of his brother's records were publicly exhibited in May and June of 1897 at 42 Halsey street, Newark. Now, since this place, No. 42 Halsey street, on the corner of Halsey and New streets, Newark, N. J., is the establishment of the witnesses A. O. and A. P. Petit (both brothers of Ademor N.), and known as the "Edisonia Company" (Emerson in rebuttal, p. 56, Q. 17; and Petit's preliminary statement); and since Ademor N. Petit says (Q. 38, p. 13) the public exhibition of his records did not begin until *1898* (instead of the middle of 1897, as stated by Albert), Albert's recollection of dates is not reliable. He is flatly contradicted in one instance (p.   hereof), and discredited by Ademor N. in another. He gives no facts, and his memory for dates is unreliable: there can be no support from such testimony.

What has Jessmer to say of the transaction of June, 1897? Merely: "On June 13th, 1897, I was at his house, and he was working on a phonograph, and there he made a record, and after making some changes on the phonograph he reproduced what he had spoken" (p. 44, Q. 3). What sort of record? How was it made? What changes were made on the phonograph? It is true that, in the first part of the same answer, Jessmer says that on a previous occasion Petit *told* him (hearsay) that he "treated the surface of celluloid," but he does not say *how*. And in view of the other Petit applications, involving methods for making celluloid sound records other than by engraving (p. 15, Q. 54; pp. 19, 20, x-Qs. 82–3), it by no means follows from Jessmer's answer that on June 13, 1897, Petit took celluloid, first softened it, then permitted it to stand until it assumed a crisp consistency, and while in that condition cut or engraved therein a record of sound. The answer merely purports to say that the (?) record was reproduced on a phonograph.

Mr. Werner was not present when the record of June 13, 1897, was made, and of course cannot testify as to what was done, or as to what he afterwards learned by hearsay. The sum of his competent testimony is this: That on June 13, 1897, Petit showed him a celluloid record, and permitted him to listen to a reproduction from it, and Werner identifies the exhibit. This exhibit is not shown to be *engraved*, and (even admitting the hearsay portion of Werner's statement) the most he says is that Petit *told him* he had "treated the celluloid with chemicals," nothing about letting it stand until it assumed a crisp consistency. The exhibit itself, with *all* the testimony of all four of the witnesses (both the inadmissible as well as the admissible portions), fails to establish that in June, 1897, Mr. Petit had a complete conception of the article constituting count 1 of the issue, or of the method constituting count 2. The very most that he has proved is that during this period he was experimenting and did probably succeed in producing a celluloid sound record of *some* kind and by *some* method or other,—but not the record and method *of the issue*. There is no *proof* on this point. So far as any evidence offered for Petit goes, as to the entire period through this last date—June, 1897—he was still "*groping*." In fact, we believe (and a perusal of his original application of October, 1899, will bear us out) that not until shortly before he filed the divisional applications involved herein, did Mr. Petit have any conception of count 2 of the issue. All three of his specifications as well as his depositions emphasize the distinction that, to render the celluloid susceptible of receiving an engraving, he relies upon the presence in the solvent of an oil or fatty acid, rather than upon the *delay*—the "then permitting it to stand until it assumes a crisp consistency"—called for by the issue, and first disclosed to the Patent Office by Capps.

Petit's Reduction to Practice.

Mr. Petit assigns November of 1897, but the earliest date of actual reduction to practice that his evidence can establish is March 2, 1899.

His own testimony on this point is found on pages 11–13. After June, 1897, he "continued *experimenting* from time to time, * * * and particularly

during the months of November and December, 1897, he [I] made a series of *experiments* upon cylinders constructed in a more perfect form than what he [I] had used prior to this date," June, 1897 (Q. 34, p. 11). On Thanksgiving Day, 1897 [November 25, 1897], he "formed cylinders to fit the mandrel of the phonograph" (Q. 36). He offers a cylinder alleged to be the subject or result of one of the "experiments" of November-December, 1897, "Petit's Exhibit, November, 1897" (Q. 35). And states that one or two of the record cylinders made during his experiments of November-December, 1897, were publicly exhibited after January 1, 1898, in the store of the "Edisonia Company," in Newark (but see p.   of the Record).

But, in answer to Q. 39, he testifies that, in February and March, 1899, he "then *actually* recorded and reproduced records made according to his [my] application involved in this interference." This is the first answer in which he pretends to say in what manner he made the records—*i. e.*, "in accordance with his application." Recalling that he has other applications for making celluloid sound records, and that such articles are not broadly new and may be made by various methods, the witness' statement amounts merely to his own conclusion; he does not give facts from which the Examiner of Interferences can determine whether the record was made in accordance with Petit's present application or not, and whether or not what he did amounted to a reduction to practice of the invention of the issue.

However, he says here, that in February and March, 1899, he "*actually*" carried out—not necessarily the invention of the issue, but *something*. The inference is unavoidable that *never before that date* had he succeeded in actually doing the thing, whatever it was, that he had in mind. It is true that, in answer to x-Q. 65 (p. 17), he offers the explanation that this period (February-March, 1899) was the *first* occasion upon which he had actually made "the record" (?) in the presence of someone else; but the explanation is not entirely satisfactory, since—after testifying that in the months of February and March, 1899, he "*then* actually recorded and reproduced"—in his next answer to the question (Q. 40) as to the presence of others, he goes on to say that "On *March 2d*, 1899, William H. Jessmer was present." This is the earliest date on which a witness was present. All this testimony, taken together, can mean only that, whereas he *actually* did something during February, 1899, yet it was not until March 2 of that year that any one else was present when he actually reduced to practice that *something* (whether the invention of the issue or not, is not made out).

The only logical conclusion is that, by the testimony of Mr. Petit himself, the very earliest date upon which he can lay claim to a complete reduction to practice as supported by the testimony of another witness is *March 2, 1899.*

And this is borne out by his subsequent course of conduct. It was not until this month, March, 1899, that he himself regarded his invention as completed; during this month only was it that he approached Lefferts and the Celluloid Company (Petit, Q. 45, p. 14), and in April that he raised some money from parties he had interested (Q. 47), probably Prescott (Prescott, Q. 1 and x-Q. 25) and possibly Hawthorne also (Hawthorne, x-Q 21).

Nor is this witness' memory entirely to be relied on. He said he had made, "according to my process described involved in this interference, about one thousand [1,000] records THAT WERE COMPLETE AND SALABLE ARTICLES" (Q. 49, p. 14); but on cross-examination he modified his "one thousand" (1,000) complete and salable articles down to "at least 250" (x-Q. 72, p. 18). Again, after testifying that he had sent abroad "between 60 and 75" of these articles (x-Q. 66), and had "delivered to parties here in this country probably 50 such records" (x-Q. 74), he

should know that he ought to have at least 125 remaining; but at this point he seems disposed to reduce his figures (already lowered from 1,000 to 250—75 per cent.) *still lower* (x-Q. 75). After discounting his own figures so liberally, it is not unreasonable that his dates, together with the rest of his testimony, should be as liberally discounted.

As already noted, the personal statements given by one of the parties to an interference have no weight unless supported. The supporting witnesses relied on to prove Petit's reduction to practice are Arthur P. Petit, Jessmer and Guigues. Of these, Arthur Petit, so far as his testimony gives facts, says merely: "I did assist him on several occasions in purchasing material for his *experiments* [*What* were these experiments?]; the most important was the celluloid tubular box, which I purchased and delivered to him" (Q. 5, p. 23). "I have heard records made from that celluloid tubular box which I bought for him" (Q. 7). He does not testify that he *saw* the records made, or *how* the records were made, or that they were *engraved* records, or *when* he saw or heard them. All he states is that he delivered this box in November of 1897 (Q. 6). The corroboration from this testimony amounts to this: that in November, 1897, Arthur Petit delivered to Ademor Petit a celluloid box out of which (at a time not stated by Arthur) *some sort* of record was made (though *of what kind*, and *how made*, and *when*, does not appear), and that Arthur afterwards heard such record, but *when* he first heard it does not appear. This is too vague to support anything.

Mr. Jessmer's testimony as to this period is equally vague, and somewhat ambiguous. After testifying to events which he assigned to June, 1897, he was asked whether A. N. Petit ever made any other celluloid records in his presence. He answered "yes," on *March 2d, 1899*—and proceeded to say that Mr. Petit "shaved the blank of the celluloid and made a record upon this blank, just the same as he would on wax" (Q. 10, p. 45).

Being asked as to what else Petit did with the record besides shaving it, he reported what Mr. Petit had *told* him, and, this hearsay evidence being objected to, he stated that he had personally *seen* Mr. Petit treat celluloid surfaces, "particularly between Thanksgiving and New Year's of 1897" (Q. 12, p. 45). In this last answer he continues: "the mixture that he *told* me he used was a fatty matter and a celluloid solvent; that he treated the surface of the celluloid, and thereafter let it stand for a while before making a record." Whether this hearsay evidence (of course incompetent to prove anything except *disclosure*) relates to the record of March 2, 1899, or to the "experiments" of the latter part of 1897, is not clear. The witness was testifying at length concerning the transactions of March 2, 1899, when interrupted by Capps' counsel objecting to the witness reporting what Mr. Petit had told him about the treatment of celluloid; and, after the interruption, and his statement that he had himself *seen* Petit treat celluloid surfaces, he resumed his report (of the conversation with Petit on March 2, 1899) by saying that Petit told him he used a fatty matter, etc., and that Petit told him he treated the surface of the celluloid, and thereafter let it stand, etc. Since the date of the transaction of which Petit told him may be either 1897 or 1899, with a reasonable probability in favor of the latter, it must be taken against the party offering the evidence, thus fixing this disclosure as on March 2, 1899. However, in either event, this hearsay testimony is not *evidence*, except of disclosure.

Mr. Guigues' testimony is interesting and suggestive. On his direct testimony he nowhere assumed to state facts to show what Mr. Petit did, or what sort of record he produced. The witness had "seen experiments made from November, 1897, until within the last few days, *from the first stages as experimental work*, until they were put up as records, in cylinder form" (Q. 3, p. 47). Evidently, in November, 1897, according to this witness and Petit's own admissions, Petit's

efforts were only "the first steps of experimental work"—particularly since further on Mr. Guigues testifies that the *first* record that he remembers having seen Mr. Petit make was "on *Sunday*, the 2d of March, 189*8*" (Q. 4, p. 47); and he then proceeds to identify the exhibit record admitted to have been made in 189*9*, as the one he saw made in 189*8*. He corrects his mistake as to the year, saying that it must have been 1899 that he saw the record made (Qs. 5 and 6). What is noticeable about this portion of his testimony is that, in 1898, March 2 fell on *Wednesday*, and in 1899 it fell on *Thursday*. It is noticeable all the way through Mr. Petit's record that he and his witnesses paid all their visits to one another and had all their consultations on Sundays, wherever any day of the week is assigned. It is very probable that Mr. Guigues did see some record made in some manner and on some date; but, since his memory for dates is discredited in two respects, instead of supporting Petit his own testimony needs support. But Petit says Guigues was not present when this record was made (p. 13, Q. 42), though Guigues claims to have "seen it made on March 2d, 1898" (p. 47, Q. 6).

Mr. Guigues is an expert chemist and an inventor (Q. 1, p. 46). Petit was in the habit of consulting him "repeatedly *from November, 1897*, until the present time" (Q. 10). The witness gave Petit information in regard to celluloid and its treatment (Q. 10, x-Q. 18), which he declined to divulge on the record (x-Q. 19), although he testifies that of his own knowledge (x-Q. 22) gained by experience and experiments for a number of years (x-Q. 23)—at least 15 years (x-Q. 24)—he has known that "a fatty acid to celluloid, after it has received the solvent, will act so as to give a clear and satisfactory record" (x-Q. 21). This comes dangerously near to showing that Mr. Petit did not himself make the invention or discovery for which he filed his applications, but (if Mr. Guigues' uncontradicted and unexplained testimony is to be believed) the same is the invention of Guigues himself. It does demonstrate clearly, however, that not until after Petit met Guigues, in the latter part of 1897, did the former begin to have any information (either as an original conception or as result of knowledge imparted by Guigues) as to the invention he now attempts to patent.

We submit with confidence that the question of priority of invention of both counts of the issue must be decided in favor of Capps.

Dated New York City, April 4, 1901.

Respectfully submitted,
PHILIP MAURO,
Attorney of Record for Capps.

REEVE LEWIS,
C. A. L. MASSIE,
Of Counsel.

In the United States Patent Office.

INTERFERENCE NO. 20,769.

FRANK L. CAPPS vs. ADEMOR N. PETIT.	Before the Hon. Board of Examiners-in-Chief.

Brief in Behalf of Ademor N. Petit.

MAY IT PLEASE YOUR HONORS:

This is an appeal by the junior applicant Capps from the decision of the Examiner of Interferences awarding priority of invention to Petit.

The invention at issue between the contestants in this interference relates to sound records of celluloid and the method of making the same. The subject matter involved is in two counts and is set forth in the official declaration as follows:

Count 1. "As a new article of manufacture, a celluloid tablet having engraved thereon a record of sound."

Count 2. "The method of producing sound records in celluloid, which consists in first softening the celluloid, then permitting it to stand until it assumes a crisp consistency, and while in that condition cutting or engraving therein a record of sound."

Capps' application was filed April 3d, 1900.

Petit's original application was filed October 27th, 1899, but to comply with the requirements of the Patent Office he filed divisional applications July 30, 1900, which are involved in this interference.

The burden is on Capps by reason of his later filing date, and, unless the onus is fully discharged, Petit must prevail.

The Examiner of Interferences held that Capps is chargeable with laches, and has failed to exert such reasonable diligence as was incumbent upon him, and that, even assuming that Capps had a conception of the invention in issue, and disclosed it at the earliest date claimed by him, he must fail as against Petit, and it is confidently believed that your Honors must arrive at the same conclusion upon a perusal of the testimony.

Capps has filed three preliminary statements in this case. In his first statements he says that he conceived the invention and disclosed it to others in January, 1897; that he was engaged in reducing the invention to practice and experimenting to perfect the same during the summer of 1897, and produced a satisfactory sound record on or about June 1st, 1897; while in his third statement, after having had access to his opponent's dates, he says that he conceived the invention and disclosed it to others on or about January 1st, 1895, and reduced it to practice on or about March 6th, 1895, and again on January 16th, 1896, on February 18th and 19th and March 2d, 1896, and also on April 6th, 1898. The only reason given for these changes is the alleged new discovery of a memorandum book belonging to another party which we were denied the privilege of examining, except the particular page referred to by him and upon which no mention of Capps is made, all the other pages being sealed up, so that we have nothing upon which to form an opinion of our own as to whether the memoranda had anything to do with Capps or whether it was made in 1895 or in *1901*.

Upon examining the testimony taken in behalf of Capps, it will be found that it does not harmonize with either of the three statements filed by him.

Capps' Evidence in Chief.

In Capps' deposition in answer to Q. 5 he says that he first disclosed the invention to others about the month of March, 1895; In answer to Q. 10 he says that he conceived the invention during the spring of 1895; nowhere in his testimony is any mention made of the dates "February 18th and 19th, and March 2nd, 1896" on which dates he says in his last filed statement he further reduced the invention to practice; neither is any mention made anywhere in his testimony of the date of June, 1897, on which date he says in his first filed statements that he reduced the invention to practice, nor is any attempt made to explain the discrepancy.

In regard to the date of April 6th, 1898, set up in Capps' last statement as one of the dates upon which he reduced the invention to practice (while his own deposition is entirely silent, not only upon this date, but upon the other dates also, of January 16th, February 18th and 19th and March 2nd, 1896), his only witness in chief (Emerson) produces a cylinder which in answer to Q. 31, he says he got from the celluloid company prior to April 6th, 1898, and which cylinder is in evidence as "Capps' Ehxibit Celluloid coated cylinder," but this is simply a brass cylinder covered by a celluloid tubing and no treatment was given the celluloid nor is there any record on the celluloid as is proven by the witness in answer to x-Q. 86. In fact, no sound record of celluloid has been produced on behalf of Capps in his testimony in chief, except a celluloid disk which it is stated was made on a special machine about March 6th, 1895, and is in evidence as "Capps' Exhibit Original Celluloid Record," and which is claimed in Capps' statement, as last amended, as a reduction to practice, but your Honor will see at a glance that it cannot properly be called a reduction to practice, no matter in what year it was made; no practical use was made of it, and it is said by the witness Emerson, in answer to x-Q. 79, that it has been kept in Mr. Capps' private closet. Although this disk is produced as the reduction to practice of March 6th, 1895, set up in Capps' last-filed preliminary statement, it is quite evident that even Capps himself and his witness do not consider it more than an experiment ; in fact, being the very first trial, as testified to by both, it could be nothing else but an experiment, and it will be noticed that it is called an *experiment*, both by Capps, in answers 46 and 59, and by Emerson, in answers 11, 46, 60 and 65, and, further than this, Capps says in his preliminary statement that he was engaged in reducing the invention to practice, and experimenting to reduce it to practice, two or three years after the date of making the experiment of March 6th, 1895.

Mr. Capps, in answers 11, 12, 13, says that *he* made the exhibit " Capps' Exhibit Original Sound Record," while in answer 17 he says it was made with the assistance of Mr. Emerson, and in answer to x-Q. 48 he says that he cannot say that he was present when it was made. In answer to x-Q. 51 he says that he had not himself made any record prior to this exhibit, and neither does his own testimony nor that of his witness show when he (Capps) did first make any record. Capps says that this particular disk was made on the special machine marked " Capps' Exhibit Original Machine " in his shop at the U. S. Phonograph Company's place, and Emerson states, in answer to x-Q. 75, that the machine had been in Mr. Capps' possession up to about two years ago, while in answer to Q. 46 Emerson says that this record was made " *on a table in the kitchen of my house at 208 Orange Street, Newark, N. J., where I was at that time making our first experiment.*"

It should be borne in mind that Capps' only witness in chief, other than himself, is this Mr. Emerson, and that said Emerson is not a disinterested party being the superintendent of the record department of the Columbia Phonograph Company, which company is really one concern with the American Graphophone Company, the assignee of Capps, having the same officers and being the sole selling agent of the said American Graphophone Company. This is admitted by counsel for Capps (x-Q. 17, deposition of Gregory in rebuttal).

It should also be borne in mind that neither Mr. Capps or Mr. Emerson remembered anything about this celluloid disk experiment of 1895, or the special machine on which it is claimed to have been made on March 6th, 1895, until after they and their attorney had had opportunity to inspect the preliminary statement of Mr. Petit, although they had consulted together in preparing Capps' two first statements ; nor did either of them remember anything having been done in connection with the invention by either of them earlier than the year 1897.

Capps was asked by his counsel in Q. 21, how he fixes the dates given by him in preceding answers, and Capps replies, " By reference to a record kept by Mr. Emerson." His counsel then asked (Q. 22) : " Do you rely on any other contemporaneous facts or coincidences to assist your recollection ? " To which Capps answers that he remembers distinctly that he made the machine in the early spring of 1895, and goes on in the next answers to state his recollection about the building of the machine while engaged at the premises of the U. S. Phonograph Company in Newark, and that he afterwards, in November, 1895, rented a place himself, and that he is absolutely certain that the circumstances he has testified to took place before November, 1895 ; yet neither Mr. Capps or Mr. Emerson had any recollection of this machine when preparing Capps first statements, and it is respectfully contended that if this machine and the celluloid disk experiment were made at the time now claimed, there is no reason why one, if not both of them, should not have remembered either the machine or the experiment, or both, or at least some of the circumstances which now make both their memories so clear, especially as Emerson admits in answer to x-Q. 80 that he supposes that *he has seen the celluloid disk several times during the past three years.*

" It is always a suspicious circumstance in a case of " interference that after the claim of one of the parties "has been fully disclosed and fixed as a specified date, "the other should then seek by amendment of his "preliminary statement to show a date of invention "different from that in the original statement, and "prior to it and to the date of his opponent" (Court of Appeals Decision Parker vs. Appert, 75 O. G., 1201).

If we assume, for the sake of argument only, that Capps' invention was, in 1895. such as he now claims it to have been, his testimony does not show any explanation of the *delay of five years and three months* in filing his application now in interference, and therefore the presumption is in favor of the theory that Capps had no completed or perfected invention in 1895, and that the experiment of 1895 had been abandoned and forgotten. However, assuming, for the sake of argument only, that Capps did conceive the invention in controversy, in January, 1895, let us see what was done during the following *five years and three months* before he filed his application in this interference.

Capps testifies that it would be very hard to state how many records he has made, but that such as have been made were made at different times during the last five years, *but that none of them have been put on the market for sale* (Answer to x-Q. 65), and that only about twenty out of a probable one hundred were suitable for the market (Answer to x-Q. 70). However, not one of such twenty were sold, nor *was Capps able to produce one of them as an exhibit;* the only record other than the experiment alleged to have been made in 1895 which he is able to produce is a brass cylinder covered with celluloid; but no treatment was given the celluloid, nor was any record ever cut or engraved upon the celluloid, and we cannot conceive what connection this exhibit has with the matter in controversy, although it was introduced as one of the reductions to practice set up in Capps' last statement; namely, "April 6th, 1898."

It appears from the record that Capps sold his processes to the American Graphophone Company about September 1, 1898; and, while no reason is given in his testimony for the long delay in filing his application for patent, even assuming for the sake of argument that there had been good and sufficient reasons for the delay up to the time when he sold out to the said company, surely there is no reason for the further delay of the year and a half after such sale was made before his application was filed, or for not manufacturing the articles for sale so that the public might derive some benefit from the invention, especially as the said assignee company owns and controls the pioneer patents covering engraved sound records as articles of manufacture, as well as the method or process of engraving the same.

No inventor using reasonable diligence would delay *five years and three months* between his conception of an invention and his filing an application for a patent for the same, especially when, as he states, he thought the invention complete at the time of conception, and the strongest and most convincing proof is necessary to negative the presumption of abandonment which is necessarily raised by such a long period of delay.

Croskey vs. Atterbury, 76 O. G., 165.
Mason vs. Hepburn, 84 O. G., 147.
Hunter vs. Stykeman, 85 O. G., 610.
Arnold vs. Tyler, 79 O. G., 156.

"Diligence cannot wait upon the convenience or business arrangements of an inventor or his company" (Dailey vs. Jones, 67 O. G., 1819).

Petit's Proofs.

The memorandum book produced by Mr. Petit clearly proves the date of his conception of the invention in controversy as set up in his preliminary statement—namely, January 4th, 1896. Mr. Petit's testimony shows that he immediately disclosed the invention to others, and that on April 24th, 1896, he made a practical demonstration of the invention in the presence of A. O. Petit, and actually recorded and reproduced sound at that time; this record is in evidence as "Petit's Exhibit Original Experiment of April 24th, 1896," and we would remark that, while this experiment is fully as good as the experiment of Capps which he chooses in his preliminary statement to term a reduction to practice, Mr. Petit in giving us the facts for the preparation of his preliminary statement did not even term such experiment a model.

Mr. Petit was under contract during the year 1896 to devote his time in working out a kinetographic camera and apparatus for exhibiting the kinetic-photographs, and after the termination of this contract he continued the unfinished work in an endeavor to raise money with which to proceed with his celluloid record work, but failed to realize anything. As soon as he was able to obtain employment he immediately invested some of his earnings in the celluloid record experiments, and on June 13th, 1897, made a record on celluloid according to the method described in his present application, and this record is in evidence as "Petit's Exhibit Original Celluloid Record of June 13th, 1897." This record was made in the presence of William H. Jessmer and A. O. Petit, both of whom in their deposition identify it and substantiate the circumstances of its making. It was also seen on the same day by Mr. George Werner, and the reproduction of the sound recorded thereon was listened to by him, and he testifies that the sound was reproduced understandably at that time.

Mr. Petit continued working on this invention during his available time, and made records in November and December, 1897, upon cylinders constructed in a more perfect form, one of which made by him in November, 1897, is in evidence as "Petit's Exhibit, November, 1897." Mr. Petit found that it would take a great deal more money to carry on the work in connection with this invention than he was able to command, and he endeavored to obtain financial assistance, but without success. As soon as his means would permit he continued his work upon this invention, and in February and March, 1899, made other records according to his present application. William H. Jessmer, one of his witnesses, testifies to having seen Mr. Petit make a record on March 2d, 1899, which reproduced the sound correctly, and this record is in evidence as "Petit's Exhibit Original Celluloid Record of March 2d, 1899." On the same day that this record was made it was shown to Mr. Albert A. Guigues, who testifies to this fact, and that it was operated in his presence reproducing the sound recorded understandably and satisfactorily; and Mr. Guigues further testifies that he has seen Mr. Petit make hundreds of other records according to the process described in Mr. Petit's application in interference.

Mr. Petit had been refused financial aid from the Celluloid Company of New York, from whom he had solicited assistance for a part interest in the invention; but in the latter part of April, 1899, he received some money from parties interested in his inventions, and he then set to work on a larger scale to discover the simplest method of operation prior to applying for a patent for his invention, although he was aware that the American Graphophone Company, assignee of Capps, owned and controlled patents covering engraved sound records as articles of manufacture, as well as the method or process or engraving the same, and that the said company had obtained decisions from the courts sustaining those patents and threatened all infringers of the article or method; still it had been his desire all along to protect his invention by letters patent as soon as his means would permit, so as to be able to manufacture and sell the same as soon as the pioneer patents, which only had a few years to run, had expired, and he made about 1,000 records according to his process that were complete and salable articles, which is demonstrated by the fact that several lots of these records, which were sent into different foreign countries for the purpose of selling his foreign patents for this invention proved satisfactory to the purchasers after examination and test of the same, which is proven by the fact that payment on the purchase price of such foreign patents has been made.

We are aware that the main question in interference cases is one of priority of invention, but as Mr. Capps, both in his preliminary statements and in his testimony, has stated that he had made successful records on celluloid by the process described in his application involved in this interference, and as Mr. Petit's own experience had convinced him that it was an impracticable method, it was deemed proper, in behalf of Mr. Petit, to introduce evidence to prove the impracticability of the Capps process, and therefore the deposition of the experts Hawthorne, Prescott, Guigues and Werner were taken for such purpose. All of these gentlemen are the best qualified in the country to give a correct opinion on the subject, and they all unanimously conclude, after careful personal tests, that it is impossible to produce a successful or salable record on celluloid by the process described in the application of Capps ; and the experts Hawthorne and Prescott both submit as exhibits the cylinders of celluloid treated by themselves according to the Capps process, and upon which they endeavored to record sound, together with the details of such tests, and these are in evidence as " Petit's Exhibit Hawthorne's Experiment with Capps' Process Nos. 1, 2 and 3 respectively," and " Petit's Exhibit Prescott's Experiment with Capps' Process Nos. 1, 2 and 3 respectively."

Capps' Evidence in Rebuttal.

It will be seen that both Mr. Capps and his counsel evidently consider that Mr. Petit has clearly proven all the facts set up in his preliminary statement as to date of conception, disclosure to others, reduction to practice and manufacture of salable records, for the reason that no testimony in rebuttal of these facts is attempted The rebutting testimony relates solely to the question of the practicability of the Capps process, and it will be found upon a careful consideration of such evidence that it tends more to substantiate Petit's position than to contradict it. Let us take up the testimony in the order in which it was taken :

Mr. Gregory, the first witness, only pretends to testify as to what took place last year. He says that he has made records by the Capps process, but the best he can say for the results is that only about 50 per cent. were understandable and that none of them were sold. The next witness Reynard, whose occupation is in the life insurance business, while stating that he has made a few records by the Capps process, principally testifies as to the special machine made by Capps, which is not proper rebuttal testimony, nothing having been said in Mr. Petit's testimony concerning this machine. The next witness, Mr. Wm. Herbert Smith, who is the treasurer of the American Graphophone Company (Capps' assignee) testifies to having seen the witness Gregory make records by the engraving process about *a year ago*, and he introduces a record which is marked " Capps' Exhibit Smith Record " which he *thinks* is one of the records he saw Gregory make last year, *but nothing is said about the process made use of in making this record or any of the others ;* whether it was by the Capps method or by some other process. This witness was evidently put on the stand to contradict the testimony of Petit's witnesses Hawthorne and Prescott, as to the statement made by Mr. Easton, the president of the American Graphophone Co., that his company had been experimenting for a long time with celluloid records and had not been able to produce one on which the record would stay, but his answer to the question asked him by his counsel on the subject simply corroborates the testimony of both Hawthorne and Prescott, as he admits that he did not enter the room until after the interview between Messrs. Hawthorne, Prescott and Easton had been continued for some time, which is exactly the statement made by both Hawthorne & Prescott.

It is impossible for us to understand why the deposition of the next witness, Leonard G. Spencer, was introduced, as he admits that his only part in making records consisted in speaking or singing into a machine and listening to the reproduction, and that *from his own knowledge he did not know what process had been used in the preparation of the cylinder prior to the records being made and nowhere in his deposition is any mention made, of the Capps process or any other process or any treatment at all being given the surface of the celluloid before recording the sound, nor that the record was engraved; neither was he certain of his own knowledge that the record was on celluloid.* When objection was made to this deposition, as not being proper rebuttal testimony, counsel for Capps replies that he "gladly wel-" comes this objection and takes this opportunity of " stating that he regards this rebutting testimony in " the nature of being taken *de bene esse;* since he con-" siders the testimony of the witnesses Hawthorne " and Prescott as to the operativeness of Capps' proc-" ess as entirely incompetent and inadmissible.' We utterly fail to see what this witness' testimony has to with the statements of Messrs. Hawthorne and Prescott, or where there is any point in the objection of counsel for Capps for the reasons above stated, and our objection to this

witness' testimony should not only have been on the ground of improper rebuttal, but also as incompetent and immaterial.

The next witness, Victor H. Emerson, is the same interested party who testified for Capps in his evidence in chief. He simply testifies in rebuttal that he started the witness Gregory at work, and directed him to make the record " Capps' Exhibit Smith Record." He also testifies to having heard the witness Spencer sing and speak in making records, and as to the witness Reynard working on the machine.

Mr. Capps, the applicant, is now called. It appears that the evening before he invited F. W. Bird and J. W. Housel, Jr., to witness the making of two sound records for the purpose of testifying to the fact on the following day. These two records are put in evidence as Capps' Exhibit Celluloid Record of March 4, 1901, and same No. 2. He testifies that they were produced by first putting the cylinders in alcohol, allowing them to dry for five minutes and then engraving on them. He also puts in evidence three more records which were made by him on the day of giving his testimony, and he says that they were made the same as the other two of the night before, but he admits, in answer to x-Q. 25, that, with regard to all five of these exhibits, he, in every case, treated the celluloid himself, and that the other parties did the talking or singing into the machine, and that they had nothing to do with the treatment of the celluloid. The parties Bird and Housel, Jr., are put on as witnesses, and testify to having seen Mr. Capps make the two records of March 4th, 1901, but they both admit that they do not know of their own knowledge whether any other ingredient was contained in the alcohol or not; that they were told it was simply alcohol, and that it smelled like alcohol. Nobody appears to have seen Mr. Capps make the three records he states were made on the morning of the day he gave his testimony. Mr. Capps was then recalled and testimony introduced to intimate that the addition of some other ingredient to alcohol would change its color or make it appear cloudy, but Mr. Capps on cross-examination was obliged to admit that fatty acid or other ingredient might be added to alcohol without changing its color or appearance. Can it be presumed that if Mr. Capps is now so easily able to produce an understandable record on celluloid treated simply in alcohol alone, which was one of the first substances which he experimented with in 1895, that we should find him (as set forth in his preliminary statements) in the summer of 1897 "engaged in reducing said invention to practice and in experimenting to perfect the same," especially in view of the testimony of competent experts that such a thing is not possible.

The only other witness called, Mr. Easton, the president of the American Graphophone Company, assignee of Capps, was of course necessary in order to prevent an admission of the truth of the statements of Messrs. Hawthore and Prescott relative to their interview with him in November last; but if the answer of Mr. Easton can possibly be construed as a direct denial of Messrs. Hawthorne's and Prescott's statements, it can, at the most, be taken as the statement of one very much interested party against the testimony of two disinterested parties, and the best evidence that the testimony of Messrs. Hawthorne and Prescott is correct, is the fact that notwithstanding that the said American Graphopone Co. own the only patents that might interfere with the manufacture and sale of such records, the said company have never put records made by the Capps process on the market.

Summary.

Capps, after learning the dates of his opponent, filed an amended statement, setting his dates back over two years, and claims to have reduced the invention to practice by his first experiment, which he introduces as an exhibit, but which is referred to by himself and his only witness in chief, as an experiment in their deposition, although the same thing is set up in the amended statement as a reduction to practice, yet several years after making this he is still found experimenting to reduce to practice. He states that he made other records but he is unable to produce anything except a brass cylinder covered with celluloid, the surface of which was never treated in any manner, and upon which no record was ever made. His testimony is at variance with all three of his preliminary statements. He has never put the articles on the market for sale, neither has his assignee, although owning and controlling the only patents which could interfere with the manufacture and sale of such articles. He failed to file his application for patent involved in interference for *five years and three months* after the time he claims to have conceived the invention, and no reason whatever is given in his testimony for this long delay.

It is to be borne in mind that the burden is on Capps by reason of his later filing date, but even were this not so, he has failed to produce evidence sufficiently clear and convincing to overcome the almost conclusive presumption of abandonment which rests upon him by reason of his delay of over five years between conception and filing.

Slattery vs. Shallenberger, 62 O. G., 1515.
Hunter vs. Jenkin, 56 O. G., 1705.

The Court of Appeals decided in the case of Darnele vs. Grant, O. G., 92, 557, that "One party entitled to constructive reduction to practice by filing his application he is entitled to the decision on priority even if it be conceded that the other party had a conception of the invention prior to that time, since he has not shown an actual reduction to practice at any time or diligence up to the time when he filed his application, a year later than the other party."

It is contended that the disk experiment introduced by Capps is not an actual reduction to practice; that it is nothing more nor less than an abandoned experiment, and that he has not only failed to exercise reasonable diligence, but has exercised no diligence whatever in adapting and perfecting his invention for the market; he has made no progress in over five years.

" The burden of proof is not only upon a junior applicant to show priority of invention, but he must also show that he has used reasonable diligence in developing and perfecting his invention, for in such cases mere conception without actual reduction to practice within a reasonable time amounts to nothing." * * * " In questions of priority of invention in matters of interference the party first making application for patent has a *prima facie* case as against the junior applicant." * * * " A small experimental model of a size not calculated to be of any practical value never intended to be more than an illustration, put away after it was made and of which no use was attempted to be made until after the declaration of interference does not constitute a reduction to practice." * * * " Complete invention must amount to demonstration. It must be to have passed the region of experiment—of possible or probable failure—and to have arrived at certainty by being embodied in the form intended, capable of producing the desired results. A model alone, no matter how complete in detail or construction, does not come within the operation of such a rule" (Court of Appeals decision in case of Hunter vs. Stikeman, 85 O. G., p. 610).

" The apparent abandonment of a machine by the inventor and the long and wholly unexplained delay of more than four years in the application for a patent are strongly indicative of the fact that the machine was not a successful reduction to practice and was not more than an abandoned experiment. * * * It is greatly to the interest of the public that long delay unexplained between the time of the alleged invention and the application for patent when other inventors have entered the same field and other rights have accrued should be held to bar stale claims of priority" (Court of Appeals decision in Fefel vs. Stocker, 94 O. G., p. 433).

The Examiner of Interferences, in deciding this case, states that he fully acquiesces in the contention that the disk experiment introduced by Capps is not an actual reduction to practice; *that it is nothing more nor less than an abandoned experiment*, and that "it seems to " him that Capps himself so considered and treated it. " All of his acts and conduct in regard to it point to " this conclusion. * * * It seems to the Examiner " but a fair conclusion that Capps had not, previous " to his date of filing, completed his invention or re" duced it to practice in operative commercial form."

Quite on the contrary, to the great lack of diligence shown by Mr. Capps, Mr. Petit has clearly proven his date of conception, reduction to practice, due diligence and manufacture of a very large number of perfectly successful and salable records. It has been clearly proven that the best results can be obtained by Mr. Petit's process, and the only reason that Mr. Petit did not put the articles upon the market here for sale is that the American Graphophone Co., assignee of Capps, threatened to prosecute all parties dealing in or selling engraved sound records as articles of manufacture or made by the method or process of engraving. Mr. Petit had not the means for contesting the validity of the patents held by the American Graphophone Co. nor had he the means of advancing more rapidly than he has actually done with his own invention, but he has used every means in his power to perfect his experiments in this line and to file his application for patent as soon as circumstances would permit, and did actually file six months prior to Capps. It has been clearly proven by competent experts that they have in every instance met with failure in endeavoring to produce a satisfactory sound record on celluloid by the process described in Capps' application involved in this interference, while the same parties, in using the process described in Mr. Petit's application, have produced the most successful results, and it, therefore, appears that Mr. Petit is the only one of the two inventors who has invented anything from which the public might derive any benefit. However, laying all other questions aside, Mr. Capps has failed to exert such reasonable diligence as was incumbent upon him, and is chargeable with laches by his delay of over five years in filing his application for patent after he claims to have conceived the invention; it has been so held by the Examiner of Interferences in the present case, and it is confidently believed that his decision, awarding priority of invention to Ademor N. Petit, will be affirmed by your Honors.

Respectfully submitted,
L. W. Serrell & Son,
Attorneys for A. N. Petit.

New York, N. Y., September 6th, 1901.

Appeal No. 23,683 Paper No. 1

Reasons of Appeal.

AMOUNT RECEIVED

$10—

CHIEF CLERK

IN THE UNITED STATES PATENT OFFICE.

CAPPS

v.

PETIT,

INTERFERENCE NO. 20,769,

SUBJECT-MATTER: CELLULOID SOUND RECORDS.

CAPP'S APPEAL FROM THE EXAMINER OF INTERFERENCES TO THE EXAMINERS-IN-CHIEF.

Hon. Commissioner of Patents,

Sir:

The applicant Capps hereby appeals to the Examiners-in-Chief from the decision of the Examiner of Interferences in the matter of the Interference between his pending application (Sr. No. 11,358, filed Apr. 8, 1900) for Celluloid Sound-Records and Method of Producing the Same and the pending application of Ademor N. Petit, in which Interference priority of invention has been awarded to said Petit. The following are assigned for reasons of appeal:

1. The Examiner erred in not finding reduction to practice by Capps in March, 1895; in January, 1896; in February-March, 1897; in the Summer of 1897; in April, 1898; in January, 1899; during the year 1899.

2. In not finding reduction to practice by Capps before his date of filing.

3. That the Examiner erred in holding that reduction to practice must be in "commercial" form.

4. That the Examinererred in improperly considering the inadmissible hearsay testimony of Hawthorne and of Prescott when they undertook to report an alleged statement by Easton, and in not considering and giving due weight to the

testimony of Edward D. Easton.

5. That the Examiner erred in holding that, as a matter of law, where the invention had never gone into public use and had not been on sale, a delay of less than two years in filing an application after the reduction to practice, is fatal as against another pending application.

6. That the Examiner erred in finding undue delay or laches on Capps' part.

7. That the Examiner erred in assuming that the decisions in Parker v. Appert (C.D. 1896, 371) and Robinson v. Seymour (C.D. 1885, p.98) apply to Capps' case, and that Capps by the amending of his preliminary statement sought to set up a date of reduction to practice and completion of the invention earlier than that assigned by Petit.

8. That the Examiner erred in finding that Capps had abandoned the invention of this issue after his work in 1895.

9. In holding that Capps had forgotten or regarded as abandoned the making of the original machine of 1895.

10. That the Examiner erred in not considering and giving due weight to the testimony of the witness James K. Reynard.

11. That the Examiner erred in not considering and giving due weight to the testimony of Leonard G. Spencer.

12. That the Examiner erred in holding that the applicant Petit has ever reduced to practice the invention of Count 1 of the issue.

13. That the Examiner erred in holding that the applicant Petit has ever reduced to practice the invention of Count 2 of the issue.

14. That the Examiner erred in awarding priority to Petit on Count 1 of the issue.

15. In awarding priority to Petit on Count 2 of the issue.

16. That the Examiner erred in deciding the interference against Capps.

17. That the Examiner erred in deciding the interference in favor of Petit.

Respectfully

June 24,1901.

Philip Mauro
Atty.

IN THE UNITED STATES PATENT OFFICE.

CAPPS
Interference No. 20,769.
vs.
Before the Hon. Board of Examiners-in-Chief.
PETIT.

CAPPS' MEMORANDUM ON APPEAL.

The Invention of the Issue.

The invention of the issue is set forth on pages 1 and 2 of our brief below, to which the Board is referred. Briefly, it is based on the discovery that when celluloid has been softened (as by a solvent), though at first it is gummy and sticky so as to be unsuitable for cutting clearly and cleanly, yet when allowed to stand for a while it subsequently assumes a consistency suitable for cutting, a chalky condition (called by Capps "crispness") wherein the material may be readily and cleanly cut away and removed in chips or shavings. Upon this discovery is based Count 2 of the issue, as follows:

> "The method of producing sound-records in celluloid, which consists in first softening the celluloid,—then permitting it to stand until it assumes a crisp consistency,—— and while in that condition cutting or engraving therein a record of sound."

After the above discovery has been made, there is no long time required——no protracted experiments and investigations necessary——to carry out the idea. Reduction to practice should naturally be expected to follow closely upon conception of this invention; and a long delay after a claim of conception argues want of conception of the particular idea at the base of the present invention.

The article produced by the method of Count 2 being new, is claimed in Count 1:

> "As a new article of manufacture, a celluloid tablet having engraved thereon a record of sound."

Celluloid tablets having records impressed thereon, and celluloid tablets molded by other means are not new;---but an engraved celluloid sound-record is new.

History of the Application Involved.

Capps' Theory, his application and claims, proceed on the idea of avoiding the gummy, sticky, "uncuttable" consistency of the temporarily-softened celluloid by "permitting it to stand until it assumes a crisp consistency". Petit redognized the difficulty also, but sought to avoid it by adding to the celluloid solvent he used "a fatty acid" which combining with, or attacking, the substance of the celluloid deprived the latter of its characteristic hardness to such a degree as to admit its being cut. Upon this idea he proceeded, and in 1899 filed his parent application describing and claiming "a material for treating the surface of celluloid"---a chemical composition,---and nothing else. (S. N. 734,933, Oct. 27, 1899). This treatment effects a permanent change in the celluloid, making it in a sense "rotten". Thereafter, in April, 1900, Capps filed his application involved herein; and on June 5, 1900, the Examiner reported it allowable and requested a drawing, which was promptly furnished,---and still no suggestion of any interference.

Nearly two months afterwards Petit filed his two applications involved, styled divisional of his 1899 "chemical compound" application; now for the first time claiming the step essential to the invention in controversy— the "then permitting it to stand until it assumes a crisp consistency"; and now for the first time claiming the article, the product. These later applications can scarcely be regarded as proper "divisional applications"; had the "parent" 1899, application gone to patent, claiming as it did only the chemical compound, it could not have been reissued to claim the process of Count 2 or the article of Count 1. In any event, we have the senior applicant (Petit) whose earlier application did *not* claim the issue, seeking by amendment to claim an invention *after* it had been claimed by the later applicant (Capps), whose claims had already been allowed by the Patent Office before the other party (Petit) ever made the claim. This comes squarely within the decision of Bechman vs. Wood (89 O. G. 2459. 2462; C.D.1899), which is controlling. The manifest conclusion is that Petit, in no event, can be allowed the claims. Wood was found to be the first to conceive, but because Bechamn was the first to claim the invention, Wood was refused the claim; Petit is not even the first to conceive, and the record shows that Capps is the first to claim the invention in issue.

Facts To Be Remembered.

1. Petit, the senior party, is *not* a patentee.
2. The invention has not gone into public use (Petit's preliminary statements).
3. Neither party has put the *public* in possession of the invention (same).

In such case——

"the requirement that reduction to practice by the junior party should be established beyond a reasonable doubt is unduly onerous."

Wurtz vs. Harrington (C.A.D.C.), 79 O.G.337;C.D.1897,359.

4. If Capps' testimony is "clear, satisfactory, and convincing" that he had the invention before Petit entered the field, he must be awarded priority.

Capps' Case.

Before stating Capps' case it seems advisable to point out that the decision below turned entirely upon a misapprehension on the part of the Examiner of Interferences. The case was submitted on briefs alone, no oral argument; and the Examiner accepted as correct a statement in Petit's brief that Capps had forgotten all about certain work done in 1895, and argues therefrom that what Capps did during that time was therefore an unsuccessful or abandoned experiment. Our answer to this is: Capps did not forget his 1895 work; there is not a syllable of evidence to warrant such a conclusion,----on the contrary, quite the reverse will be shown.

Brief Statement of What Capps did in 1895.

Remember first that Petit does not claim even conception until 1896.

We have three pieces of now-existing evidence. (A) the Exhibit Machine, (B) the Exhibit Disc Record, and (C) the Emerson Note Book.

The former is a "special" and most unusual machine. Emerson, who has had ten years experience in this business (p. 27, Q 44), never saw another like it (p. 36, RDQ 95-6). It is obviously intended for engraving a sound-record upon a thin disc of uncommon hardness.----Note the heaviness of the parts etc., and the relative distances of the speaker and the tablet.

The disc is of celluloid and fits (or fitted) the machine. Both Capps and Emerson testify it was made upon this machine and by the process of the issue. They testify positively and clearly that the celluloid was first softened; then allowed to stand for a while; and then engraved upon by means of this machine (p. 8, p. 20-21); and that afterwards this disc record was used to obtain audible reproductions from (p. 21). Its present warped condition bears evidence to its age.

These two Exhibits are permanent and stubborn facts, when the Machine was completed and the Disc Record produced, at that moment Capps had succeeded in reducing to practice the inventions of the issue. This cannot be gainsaid and the next question is,---when?

Capps' Reduction was in 1895.

We now know this work was done in 1895. But when Capps was called on for his preliminary statement in the latter part of 1900---some five and a half years later--- he was not at all sure of the dates (the year) and consulted Emerson who has assisted him. Emerson thought it might be "six or seven years previously", but having no written data earlier than 1897, that year was assigned (p. 36, RDQ 96).

Subsequently Emerson regained possession of an old desk of his and the "Emerson Note Book" came to light, then Emerson and Capps knew that the invention must have been in their possession at the time of the date of that entry, viz: March 6, 1895.

The history of this matter is in the record and is familiar to the Board of Appeals; the propriety of amending our preliminary statement has already been passed on by the Examiner of Interferences and this Board. The question is now res adjudicata.

When Capps' attention was called to this entry he then recollected, and became satisfied, that the making of the machine and the disc record---his first reduction to practice---was in 1895, for these reasons.

1. The intrinsic evidence of the Emerson Note Book entry.

2. The work was done "nights and Sundays" in shop of U. S. P. Co., because he was working for that concern and had no place of his own; but got a shop of his own in Nov. 1895 (Q.23, p. 10).

3. He was working on this Exhibit Machine simultaneously with his regular daily work on a "spring motor" (for which he obtained patent No. 570,378, upon an application executed by him in November, 1895). His work was prior to applying for patent. (The data of this Capps Spring Motor patent are matters of record, and may be considered, Cain vs. Park (C.A.D.C.) 86 O.,G. 797; D. C. 1899, 278, 280).

We have then, two ascertained points of time, viz: Capps' renting a shop in November, 1895, and his making application for patent on his spring motor in the same month; and we have Capps' clear, positive, satisfactory and convincing testimony that the Exhibit Machine was built by him and the Exhibit Disc Record made thereon before November, 1895---in fact, that itwas in the Spring and Summer of that year. In addition to this we have the Note Book entry of the witness Emerson, made simultaneously with the transaction recorded, and not impeached. Emerson is a man of high standing as is indicated by the responsible position he holds; he is not an "interested" party. A decision of this Interference whether favorable or unfavorable to the Capps application cannot effect Mr. Emerson in any way. The book was handed Petit's counsel for examination(Capps Record, p. 19). "There is no proof or suggestion that there was anything suspicious about the appearance of the book or that the leaves . . . . did not appear in their proper order therein" (Croskey vs. Atterbury, 76 O. G. 163).

Beyond a doubt Capps had the invention in 1895. He not only disclosed it to Emerson, but reduced it to practice and carried it out. He carried it out "practically". He used the disc sound-record to obtain an audible reproduction. That is the only way in which any sound-record can be employed.

> "An invention that is complete and that produced the result sought to be accomplished by the inventor to his satisfaction and that of competent witnesses and which was tried in connection with a working system is a satisfactory reduction to practice, even though the device was never in fact incorporated into and made a part of the system.
>
> Wurtz vs. Harrington, 79 O.G. 397;
> C.D. 1897, 359.

Capps' Subsequent Work.

Capps, then, has shown satisfactorily his completion of the invention in 1895. Petit does not assert "reduction to practice" at any date earlier than November, 1897. Now before this date, Capps' testimony indicates reduction to practice on at least three other occasions:

Jan. 1896 (Emerson Q 22)

Feb.- March, 1897 (Emerson Q 25)

June-July, 1897 (p. 50, Spencer; p. 54-55, Emerson).

Any one of these dates will defeat Petit's claim, even if his preliminary statement be accepted as established.

In our printed brief we have given reasons, and we believe demonstrated, that Petit did not complete the invention until March, 1899---that he did not succeed in actually reducing to practice the invention of this Interference until that date. Now in addition to the four instances already referred to, Capps has shown reduction to practice in April, 1898 (p. 23); in January, 1899 (p. 43, Reynard); and continuously from that time down to March of 1899 (Petit's earliest established date of reduction) and subsequently (Reynard, Q 11). Any one of these dates will defeat Petit, if we are correct in assuming that March 1899 is his earliest available date.

All these dates show in addition that Capps was not negligent, but that on the contrary he was engaged "in perfecting and attempting to bring out all the merits of his invention", Griffen vs. Swenson (89 O.G. 919), De Wallace vs. Scott (88 O. G. 1701. These actions negative "abandonment" which must be proved.

THE DECISION APPEALED FROM.

The decision appealed from is contained in a typewritten opinion occupying some fifteen pages. The first eleven pages consist of a statement of the evidence, fairly accurate so far as it goes. The Examiner then refers to our amended preliminary statement---which does NOT place Capps' date of reduction earlier than Petit's claimed date of reduction, our original preliminary statement already claimed a date earlier than Petit's,---and thereupon the Examiner gives a representation of certain authorities cited on behalf of Petit to the effect that when a party (after access to his adversary's dates) undertook to set up dates earlier than his rival's, this was a "suspicious circumstance". The inapplicability of such reference and discussion is obvious. Petit has assigned as his date of completing the invention, first March 1899 and later (by amendment) Nov. 1897. Capps' earlier statement gave as his reduction to practice, first June and July 1897 (earlier than Petit's date) and then March 1895,---still earlier.

The next thing in the opinion, is the paragraph on the latter portion of page 13, which reaches the conclusion that Capps had not reduced to practice and had abandoned. The remainder of the decision relates to "diligence", upon the assumption that there was no reduction to practice in 1895.

Reduction to Practice in 1895.

All the Examiner says on this point is contained in the single paragraph on page 13. If we demonstrate that this conclusion starts from a mistaken assumption of fact, and proceeds by false reasoning, then it must follow that the conclusion reached by the Examiner is an error.

The false assumption is that Capps did not "remember the making of a machine, and of making the disc celluloid record on it and that Emerson assisted him in doing so". This was not forgotten by Capps. Both Capps and Emerson knew all along that the work had been done as said by them; each of them had seen both of these Exhibits repeatedly from time to time, both in Newark and subsequently in Bridgeport. (Emerson p. 33; Reynard, p. 44, 45).

The Examiner further thinks that at the time of making his original statement Capps "knew Emerson could testify to earlier dates" etc. In reply to this, Capps could not know this because Emerson himself was not at the time prepared to testify to dates earlier than those then given (Emerson, p. 30-31).

The Examiner thereupon reasons, most illogically, that because Capps elected in the first instance to assign as date of construction of these Exhibits the date upon which he has his earliest available memorandum entries, therefore this fact "raises a strong presumption that what he had done on previous dates had resulted in nothing tangible and had been abandoned".

The viciousness of this reasoning is manifest. The Examiner failed to percieve the distinction between the things done on the one hand, and on the other hand the date when the things were done. Capps and Emerson knew all along that the work had been done as testified to by them, the Exhibits had been brought down to their attorney's office in New York City long before their testimony was taken. The fact that they did not remember in which year the work was done is very far from raising any sort of presumption either that they had forgotten the work, or that nothing tangible had been done, or that the invmntion had been abandoned.

There is nothing in the two Exhibits themselves to indicate the precise year in which they were produced; so far as their appearance goes they were produced several years ago, but it may have been 1896 or 1897 or even 1894 just as well as 1895.

To prevent any misunderstanding, it is repeated with emphasis that

THERE IS NOT A SYLLABLE OF EVIDENCE, except the unwarranted statement in the brief for Petit (p. 5), to warrant the statement that Capps and Emerson had forgotten their work donw in 1895.

Law of Diligence.

The Brief for Petit and the opinion appealed from cite several authorities on the subject of diligence, but the utmost that these and many other authorities hold is---

1st. Where the senior party though subsequent to conceive, is first to reduce to practice, the junior party must show that he was meanwhile diligently engaged in reducing to practice. (And that not "beyond a reasonable doubt" where his rival is not a patentee).

2nd. Delay in giving the public the benefit of the invention---by filing an application or otherwise-- is (merely) presumptive (nothing more, not conclusive) either that he had not succeeded in reducing to practice earlier, or that he had abandoned the invention.

But this latter doctrine does not mean that he may not prove his reduction, or that on account of his delay he is peremptorily estopped from proving his reduction; but merely that his proof must be clear, satisfactory, and convincing,---and not by any means "beyond a reasonable doubt". That is "unduly onerous".

Again, if his evidence is "clear, satisfactory, and convincing" that, though the last to come into the Patent Office, he actually reduced his invention to practice before his rival, then the decisions referred to do not apply.

> "Inventors may, if they can, keep their inventions secret; and if they do for any length of time they do not forfeit their right to apply for a patent,---unless another in the meantime has made the invention AND SECURED BY PATENT the exclusive right to make etc. Within that rule and subject to that condition inventors may be made to apply for a patent; but the patent act provides" the defense of two years public use or sale.
>
> Bates vs. Coe, 98 U. S. 31; 15 O. G. 337;
> C. D. 1879, 365, 375.

In the case at bar there is no question of "two years public use or sale"; neither has Petit "secured by patent" etc. See also Bates vs. Coe, supra.

Mr. Robinson explains that: Diligence in reduction to practice is important only when the later conceiver is the earliest reducer; Diligence is required only of the earliest conceiver, and of him only when he is the later reducer,---there is no "Race of Diligence".

1 Rob. Pats. Secs. 383-384.

Again: Where the first to conceive is also the first to reduce to practice, he is the only one whom the law can recognize as inventor under any circumstances.

3 Rob. Pats. Sec. 995, p. 207, n. 1.

Suppose Petit had already obtained his patent, and this proceeding was an infringement suit; and suppose the defendant had adduced the testimony here presented,---would it not be held sufficient to cast a grave doubt on the patent, if not to defeat it altogether? A single instance of prior knowledge or use before the patentee's invention will defeat his patent. But in the case at bar, the evidence need not be "beyond a reasonable doubt", because Petit is not a patentee, and the public is not yet in possession of the invention.

> "That reduction to practice is complete as soon as the idea of means has been embodied in tangible materials capable of practical use in the arts, whether actually used in public or not; that no invention is abandoned to the public except by two years' public use or sale or by some act, word, or omission on the part of the inventor UNEQUIVACALLY expressing his intention to bestow the invention on the public without demanding the protection of a patent,---these are propositions which numerous decisions of the Courts have placed beyond dispute".
>
> 1 Rob. Pats. Sec. 390.

CAPPS' COURSE.

Capps was not at liberty to put his invention into public use; he would have brought on a law suit had he done so. (Capps 74-75, p. 17). He was an employee who had been hired and instructed to turn his efforts into another direction (Capps 30, p. 10). The assignee, American Graphophone Co. delayed less than "two years" in filing the application.

SUNDRY OBJECTIONS BY PETIT.

1. Capps memorandum books are said to be "suspicious" Croskey vs. Atterbury (supra) answers this.

2. Capps' preliminary statement and his own and Emerson's testimony are said to be "inconsistent". Reading the testimony of Capps and of all his witnesses together, there is no inconsistency.

3. Capps has produced no specimens except the celluloid disk. The argument seems to be that what were actually used and consumed or destroyed discredit the fact of invention; and what are retained discredit the witness's reliability. The grass cylinder coated with celluloid worries both Petit and the Examiner. This Exhibit is a corroborating circumstance, a link in the moral evidence. (a) Emerson, on behalf of Capps, had five cylinders covered with celluloid on or before April 6, 1898. (b) The remaining Exhibit appears, a unique object whose very existence and unusualness--oddity---calls for explanation; what could this be intended or used for? (c) In light of Emerson's uncontradicted testimony, it is inherently certain that the object was to engrave a sound-record thereon. (d) There were five in all, and the fact that one only remains shows that the other four were used. The whole chain is complete and harmonizes with the testimony as corroboration. This celluloid-coated brass cylinder does not, all by itself, constitute plenary proof of Capps' case, but it tends very strongly to show the truth of his remaining testimony.

4. Petit's brief says only one sound-record is produced by Capps. We have(1) the disk, (2) the Smith record, nearly two years old, (3) the five made last March to say nothing of the other exhibits. If the records are laud by, Petit considers them failures; and if used (and used up) he questions their existence.

5. The Disk Record was a reduction to practice; it was used to reproduce sound; that is all any sound-record can do. True, it was not used "commercially"---that

is not required. See again, WURTZ vs HARRINGTON, supra.

6. Capps and Emerson, says Petit's brief, call their work "an experiment", therefore (he argues) it must be *only* an experiment and an *unsuccessful* one. It was, possibly, an experiment; but if so, a *successful* one as the results and testimony show.

7. Capps and Emerson do not *each* claim to have made this Disk Exhibit. Emerson made this particular article, *for* Capps, working with Capps and in furtherance of Capps' ideas (Capps 47, p. 13), Emerson (46, p. 27). Petit confuses the *Machine* made by Capps at the U. S. factory, with the *Disk Record* made at Emerson's home.

8. That Emerson is a disinterested witness--even more so than Petit's witnesses Prescott and Hawthorne--- has already been shown.

9. That Capps had not *forgotten* the Machine and Disk has been shown. See also Emerson, p. 32, 34 and Reynard.

CONCLUSIONS.

Capps conceived the invention and reduced it to practice by actually carrying it out a year before Petit's first date of conception, two years and a half before Petit's first claim of reduction to practice, and about three years before Petit's earliest established date of reduction.

Under the circumstances, there is no "Race of Diligence" called for on Capps' part.

Capps has not been unduly negligent, Petit has not put public in possession of the invention, there has been no abandonment by Capps.

Capps is clearly entitled to priority on both counts.

Under no circumstances can Petit receive a valid patent.

Respectfully Submitted,

Dated Nov. 1, 1901.

Philip Mauro
atty for Capps.

C. A. L. Massie
of Counsel.

Appeal No. 23,683 Paper No. 4

Decision,

No. 23, 683. U. S. Patent Office, Nov. 22, 1901.

Before the Examiners-in-Chief, on Appeal.

In the matter of the Interference between the application of Frank L. Capps, filed April 3, 1900, and the applications of Ademor N. Petit, filed July 30, 1900, division of application filed Oct. 27, 1899. Interference No. 20,769.

Improvement in Celluloid Sound Records.

Mr. Philip Mauro for Capps.

Messrs. L. W. Serrell & Son for Petit.

The issue is:

1. "As a new article of manufacture, a celluloid tablet having engraved thereon a record of sound.
2. "The method of producing sound records in celluloid, which consists in first softening the celluloid, then permitting it to stand until it assumes a crisp consistency, and while in that condition cutting or engraving therein a record of sound."

The two applications of Petit involved in this interference are divisions of a prior application filed October 27, 1899, which has since become patent No. 662, 967. Petit is undoubtedly entitled to the date of the filing of this application as a constructive reduction to practice.

Capps is the junior party. In his first preliminary statement he alleged that he conceived the invention as early as the month of February, 1897, and that the invention was reduced to practice as early as the month of July, 1897. In his second statement he alleged a conception in January and a reduction to practice in June of 1897. In his third preliminary statement he alleged conception in January, 1895, and a reduction to practice on or about March

6, 1895, again on January 16, 1896, February 18th and 19th, March 2, 1896, and on April 6, 1898.

This change in the preliminary statements carries Capps' dates for conception and reduction to practice back of the date of conception alleged by Petit.

The amendment of the preliminary statement was made by permission of the Commissioner, but it is well settled that under such circumstances any testimony introduced to prove the facts set up in the amended statement should be very closely scrutinized and carefully weighed in the light of the events preceding its production. Corry & Barker v. Trout, MS. C. D., Nov. 12, 1900; Zwietusch v. Stockheim, 53 O. G., 755; May v. Merker, 85 O. G., 150.

Capps produces a machine and a celluloid disc, the disc purporting to be a record. This record is claimed to be a reduction to practice of the first count of the issue and to have been produced by the method of the second count.

Two questions present themselves at the outset; first, is this record a reduction to practice, and, second, at what date was it made?

As to the first question, it appears from the evidence that this disc record was made by Emerson, under Capps' direction, Capps testifies:

> "XQ. 47. How did you treat the surface of this record, 'Capps' Original Celluloid Record' before engraving?
>
> A. The record which is on this machine was made by Mr. Emerson. I told him to put a solvent on it and after a time to engrave the record."
>
> Emerson states:
>
> Q. 14. What can you say concerning the record heretofore identified as 'Capps Exhibit, Original Celluloid Record'?
>
> A. The record when first made was a perfect record. During the several years past it has shrunk and warped as all celluloid will.
>
> Q. 15. You have made quite a number of records similar to this, have you not?
>
> A. Very great many.
>
> Q. 16. Possibly this very one?

A. This identical record was made by me.

Q. 17. You have listened to reproductions from it?

A. I have.

Q. 18. Was the record produced by engraving, a direct engraving action into or upon the celluloid?

A. It was."

This record is the only one remaining of the ten or fifteen records made by Capps on his original machine. (See XQ. 43-45.)

This Exhibit Original Record can be seen upon examination to have some kind of a record upon it, but all that is known of its capabilities is found in the cautious statement of Capps that an understandable reproduction can be made, and the equally cautious statement of Emerson that he has listened to reproductions from it.

There is a statement in the answer to Q. 14, above quoted, that this record when first made was a perfect record, but it is evident from the context, as shown in the following sentence, that this perfection related to shape and not to its capability of accurately reproducing the records upon it. Moreover, the capability of this record for satisfactory reproduction was directly attacked. Thus Petit stated:

> "Q. 56. Have you or not examined the celluloid record marked 'Capps' Exhibit Original Celluloid Record,' introduced by Mr. Capps in this case?
>
> A. Yes, sir; I closely examined the same through a magnifying glass.
>
> Q. 57. Do you or not, as an expert, consider this record, 'Capps' Exhibit Original Celluloid Record,' a record from which an understandable reproduction can be obtained?
>
> A. I do not consider that this record, 'Capps' Exhibit,' is a true reproduction of the sounds that were attempted to be made thereon.
>
> * * * * * * * * * *
>
> XQ. 86. What peculiarity characterized the record in question by reason of which you have arrived at your conclusions?
>
> A. The main feature of the imperfection of that record is that it does not show the full scope of elevations and and depressions as other records show that they are made upon successful and commercial record surfaces, and also that the surface of the depressions and elevations which forms the record present such a mat surface that reproductions from such sound records are modified very much by the reproduction of this mat surface as a part of the record itself."

During the taking of the testimony in rebuttal no attempt was made to show that this original record was capable of giving an understandable reproduction. It appears as if some such attempt were proposed for Emerson testifies in XQ. 81 as follows:

> "XQ. 81. Is it in the same condition now as when you last saw it?
>
> A. It is in the same condition now as when I saw it about a year ago, except the centre hole has been enlarged to fit the toy doll for the purposes of reproduction. This was cut out yesterday."

This toy doll was not offered in evidence and the cutting out of the centre hole makes it difficult to now centre the disc in the original exhibit machine.

The evidence that this disc has on it a record that can be reproduced satisfactorily is far from convincing and is not, in our opinion, sufficient to entitle it to be regarded as a reduction to practice. The product of the process being unsuccessful, the process itself cannot have been reduced to practice, so that this evidence is insufficient to show a reduction to practice of the process in 1895. This whole procedure must be considered as an unsuccessful experiment.

Moreover, if we accept Capps' date of this experiment as 1895, the long interval that elapsed between 1895 and 1900, when Capps' application was filed, raises a strong presumption that this early device was not satisfactory at the time it was made.

Second, as to the date of the production of this original record, both Capps and Emerson fix it by an entry in a note book kept by Emerson. This entry is as follows:

> "Q. 4. Will you kindly read into the record the entry relating to the matter in controversy?
>
> A. I read as follows:
> 'March 6, 1895. In celluloid scheme have the cutting point immersed in water to prevent sticking of thread to surface of cylinder.
>
> ------
>
> 'Soften blank with boiling water. If temperature is not high enough to soften it use an oil that has a very high burning point'."

On examination of this note book we find the entry to be written in lead pencil. There is no apparent sequence in the various entries in the book. The book appears to have been used during a period of years and to have noted in it various items without regard to the order in which they occurred. Some are dated and some are undated, and on the same page are found varying dates, as for example, upon page 80 , where at least three different items are recorded as of occurrences in three different years. Moreover, the first entry refers to the use of a cylinder and the evidence shows that all of these 1895 experiments were conducted with discs.

The first cylinders that appear from the record to have been used were used in April, 1898 (Q. 31, p. 23).

All of these circumstances taken together raise a suspicion either that there is some error in the date or that the entry relates to some experiment other than that which resulted in the production of this disc.

There is some attempt to show that Capps and Emerson can identify these experiments as occurring at the time alleged by certain other circumstances, such as the renting of a shop and the occupation of Capps on the spring motor device which was patented in 1895, but these facts were all known independent of the existence of the note book. They seem to be rather associations of disconnected matters and suggested by the date found in the note book.

Capps and Emerson are the only witnesses who testify in chief.

Petit called two witnesses, Prescott and Hawthorne, who testified that they had tried the method of Capps' application and found it unsuccessful, and they also testify to an interview with Mr. Easton.

In rebuttal on behalf of Capps additional witnesses were called to show that the process of Capps' application was operative and to deny the conversation with Mr. Easton. Of these witnesses it is questionable whether the testimony of Spencer is admissible as proper rebuttal. He knew of his own knowledge nothing as to the process of treating celluloid, and the only testimony that shows that the celluloid records which Spencer states he made were treated according to the process of the application is Emerson's testimony

(Q. 7, p. 55,) that a thinner was used.

Even admitting Spencer's testimony, we have only his recollection as follows:

> "Q. 7. Of what character were these reproductions, were they intelligible, understandable?
>
> A. They were, fairly so, and I thought very good, although the machine that reproduced them would at times fail to 'track.' The talking record was particularly good."

None of these records made in 1897 are offered in evidence.

Reynard testifies that he has recently read the Capps application, understands the same and has made records by the method set out in the application nearly every month between January, 1899, and November, 1900 (Q. 11, p. 44); that he used a machine (this machine being the Capps Exhibit Original Machine, according to Emerson, p. 55, QQ. 10 and 12) and produced perhaps fifty records (Q. 24); that these records were understandable (Q. 8). As to the process used he states:

> "XQ. 28. What process did you use in making these records in 1899?
>
> A. I softened the surface of celluloid with suitable thinner or solvent and allowed it to dry about five minutes. Then proceeded to engrave the sound-waves in the usual way, with an ordinary recorder.
>
> XQ. 29. What do you mean by the term 'suitable thinner'?
>
> A. Acetate of amyl, ether and alcohol equal parts, special thinner for A. B. Cement, acetic ether, sulphuric ether and combinations of the same."

None of these records are offered in evidence.

The testimony of Gregory, Smith and other witnesses called in rebuttal all goes to show that the process of Capps' application is a feasible one. As far as it relates to the question of priority this evidence refers to events occurring in the year 1900, i.e. after the filing date of Petit's parent application, Oct. 27, 1899.

Outside of the oral testimony we have produced as the result of Capps' efforts prior to the year 1900 one disc having some kind of a record upon it, one machine by which this record was made and one celluloid coated cylinder with no record on it whatever.

In the oral evidence we have no record of any attempt to show that this original record is of any value, and we have only the allegations that about one hundred records have been produced from time to time, and that out of these one hundred only twenty were suitable for the market (see XQQ. 67, 68, 69 and 70, pp. 16 & 17, Capps' Rec.)

If the 1895 or 1897 experiments were successful, it is, to say the least, remarkable that Reynard should have been working from January, 1899, to November, 1900, at intervals, upon this process, and that Gregory, commencing his work in April, 1900, (see Q. 9) should only have succeeded in making about 50% of good records.

We are unwilling to assign a date of reduction to practice for Capps prior to the date of filing Capps' application, April 3, 1900.

The record of what was done prior to that date is a record of unsuccessful experiments.

Prof. Robinson states, Vol. 1, p. 537, §381:

> "In many inventions the act of conception is clearly distinct, in point of time, from that of reduction; and in these cases the rules given above are easily applied. In many others the work of conception and reduction goes forward almost simultaneously, so nearly so that no date can be fixed as that before which the conception was complete and after which the reduction to practice was begun. This is true in nearly all inventions which are the result of experiment,- where the inventor, instead of evolving the entire art or instrument out of his own thought, conjectures that such an act or substance will subserve a given purpose, and having tried it, finds that it accomplishes the end. The production of a new means by this method is, equally with the former, an inventive act, but at no instant before the experiment succeeds can it be said that the conception of the invention exists in the inventor's mind. Until that instant it is mere speculation, at most a probable deduction from facts already known; and the same act which reduces it to practice gives to the conception its definite and final form. Hence the date of the conception in such cases is the date, not when experiments begin, but when they end; and the first to bring the art or instrument into successful operation is the first conceiver of the entire invention."

Following this doctrine that the date of conception is the date when the experiment succeeds, Capps is not entitled to a date earlier than the filing of his application. See also American Bell Telephone Co. v. Nat. Tel. Mfg. Co., 109 Fed. Rep., 976, 1029.

As to Petit's case, he alleges a conception in January, 1896, and a disclosure on April 30, 1900. It is not necessary to pay much attention to a certain early alleged reduction to practice because it is admitted by Petit that the record was not a satisfactory one. He, however, produces a record which he states was made on June 13, 1897. Petit himself states (see Q. 26) that "this record actually reproduced the sounds that I had attempted to be recorded thereon."

His brother, A. O. Petit, testifies:

> "Q. 8. Were you present when such record was made?
>
> A. I was, the one of June 13th I remember more than any others because it was a very fair record and of which you could well understand every word.
>
> Q. 9. I now show you a record marked 'Petit's Exhibit original sound record of June 13th, 1897,' and ask you whether or not you have ever seen the same before?
>
> A. I have seen it made and have seen it many times since and have heard it reproduced.
>
> Q. 10. What leads you to think this is the record you saw your brother make in June, 1897?
>
> A. On account of its being short and this celluloid being of a peculiar kind which is an imitation of ivory and being cemented over in order to fasten it on to the wax cylinder, and especially the one cut, the one deep groove cut a little one side of the center, of which I remember questioning him about as to its cause.
>
> * * * * *
>
> Q. 12. Did this record of June 13th, 1897, actually reproduce a sound understandable?
>
> A. Yes, sir; it did."

The witness Jessmer also testifies as to this exhibit. He states:

> "Q. 5. I now show you celluloid record, marked 'Petit's Exhibit Original Record, June 13th, 1897,' and ask you if you have ever seen the same before.
>
> A. I have several times, and lately.
>
> Q. 6. When did you first see it, as you remember?
>
> A. June 13th, 1897.
>
> Q. 7. What makes you think this is the cylinder you saw at that time?
>
> A. By its size, and by the cemented ends of the band and by the color.
>
> Q. 8. Did this record actually reproduce the sounds understandably at that time?
>
> A. It did.

Q. 9. Did you yourself listen to such reproduction at that time?

A. I did.

The witness Werner testifies as follows:

Q. 3. Did Mr. Petit ever explain to you or show you any improvement made by him in making sound records of celluloid, and the method of making the same, if so, when, and what did he do or say?

A. On June 13, 1897, Mr. Petit showed me a small wax cylinder covered with celluloid, and told me that he had made a record upon it; he then put it on the phonograph and reproduced it. I asked Mr. Petit how he made a record on this hard surface and he replied he had treated the celluloid with chemicals.

* * * * * * * * * * * *

Q. 6. Did this record which you saw on June 13th, 1897, reproduce the sound understandably at that time?

A. Yes, sir."

This evidence is sufficient to show a reduction to practice of the article covered by count 1 of the issue.

As to the process employed, the experiments seem to have been conducted entirely by the applicant Petit himself. None of the witnesses appears to have had of his own knowledge any acquaintance with the various procedures, though Jessmer testifies as follows:

"Q. 12. Have you ever personally seen Mr. A. N. Petit treat celluloid surfaces according to the process described in his application?

A. I have- particularly between Thanksgiving and New Year's of 1897; the mixture that he told me he used was a fatty matter and a celluloid solvent; that he treated the surface of the celluloid and thereafter let it stand for a while before making a record."

There is also offered in evidence a celluloid record made on March 2, 1899. As to this record Jessmer corroborates Petit (see Q. 10, p. 45), as does Guigues (Q. 46, pp. 6 & 7).

This evidence is perhaps sufficient to show a reduction to practice by Petit of the first count of the issue as early as 1897, or, if not then, in 1899.

As to the second count of the issue, there is no satisfactory evidence of its reduction to practice until the filing date of Petit's original application, October 27, 1899.

Even if Petit be given no date for either count of the issue earlier than this filing date, with the view we take of the case, he is the prior inventor.

It is urged on behalf of Capps that the facts in this case are such as to bring it within the scope of the decision of the Court of Appeals of the District of Columbia in Bechman v. Wood. That case was decided upon a peculiar state of facts. The Court was influenced there mainly by the consideration that in its opinion there was no foundation in the original description of the earlier application for the broad claim which was inserted later than that in the rival application.

In this case, Petit's invention as now claimed was clearly shown and described in his original application, and, under such circumstances, it is well settled that he can not be subordinated by the claim of an intervening applicant. See McBerty v. Cook, C. D. 1900, 248, 253, where the Court said:

> "We agree, however, with the Commissioner of Patents that the amended claims of Cook are clearly shown and described in the specifications of his original application and that his amendment constitutes no departure which would subordinate him to the claim of even an intervening applicant, as was the case in Bechman v. Wood."

The decision of the Examiner of Interferences awarding priority to Petit is affirmed.

Limit of appeal will expire December 22, 1901.

J. H. Brickenstein
T. G. Steward
} Examiners-in-Chief.

3rd member absent.

COPY
from
THE NATIONAL ARCHIVES
Record Group No. 241